DR. R. GREY's

MEMORIA TECHNICA

OR METHOD OF

ARTIFICIAL MEMORY

APPLIED TO AND EXEMPLIFIED IN

CHRONOLOGY	GEOGRAPHY
HISTORY	ASTRONOMY

ALSO

JEWISH, GRECIAN & ROMAN COINS
WEIGHTS, MEASURES &c

To which are subjoined

LOWE's

MNEMONICS DELINEATED

IN VARIOUS BRANCHES OF

LITERATURE & SCIENCE

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PREFACE.

IT may be proper to acquaint the reader with what improvements have been made in this work since its first publication. In the tables of the patriarchs and ancient kings, care has been taken to signify, with the utmost brevity, the relation which every person bore to his immediate predecessor. In the geographical part, besides the adding of many remarkable places both in ancient and present geography, the memorial lines for the general and particular divisions have many of them been formed a-new, with particular regard to the situation of the respective kingdoms, provinces, or countries into which those divisions have been made; so that every line is in some measure the epitome of a map. The tables of ancient coins, weights, and measures have been carefully reviewed, and very much augmented; and decimal tables subjoined, of great use for the more speedy and exact reduction of them. There is likewise added an Index of the historical, chronological, and geographical words; of the usefulness of which is given an account in the proper place. Besides these, there are several alterations and additions of less moment, interspersed throughout the whole; such as either my own experience, or the judgment of my friends had suggested to me, in order to render the design more useful. I shall not trouble the reader with the reasons of them, which, if he compares the editions, he will very probably find out himself: nor do I think it necessary to apologize for having made them, since it could not be expected that an invention of this kind should be so

perfect at first, as not to be capable of being considerably improved. And I was the more willing to bestow some care and pains upon it, and to give it what improvement I was able, in return for the favourable reception it has met with from the public, beyond what was expected by myself or others. An Art of Memory has by many been looked upon as a thing either in itself impracticable, or, at least, in the common methods of it, useless and trifling. And I was sensible that the following method would lie under the additional disadvantage of a whimsical and out of the way appearance; besides that, the seeming difficulty of it at first sight would, I foresaw, deter many from so much as attempting to make themselves masters of it. Notwithstanding these discouragements, it has had the good fortune to give some satisfaction, and to meet with some success; and will, I hope, continue to be looked upon as an useful help to those who delight in reading, and would retain what they had read with faithfulness and accuracy, particularly in such points wherein their memories are most likely to fail them.

The objections which have been made to it from the difficulty of remembering the memorial lines would most effectually be removed by habituating young minds to them betimes, by the frequent transcribing and repetition of them. The technical words would by this means become natural and familiar, and of no small advantage to them in the course of their future studies; they would be easily received and long retained. But I shall say no more upon this point, having already touched upon it in the Introduction: to which also I refer the reader for what might further be expected by way of Preface.

INTRODUCTION.

IT is a general complaint amongst men of reading, and to many a discouragement from it, that they find themselves not able to *retain* what they read with any certainty or exactness. And in no part of literature is there greater room for this complaint than in *History*: to the studying of which with pleasure and improvement, as nothing contributes more, so nothing has been thought more difficult to be *retained*, than a distinct and accurate knowledge of *Chronology* and *Geography*. Upon this account several attempts have been made to remedy, in some measure, the defects of the memory, by chronological and geographical tables, cuts, and maps, and by reducing the principal parts of history to certain epochas or areas, so disposed and contrived, as may be most likely to affect the imagination, and make the deeper impression upon the mind. Thus Mr. Hearne, in his *Ductor Historicus*, has reduced the whole compass of chronology to thirteen grand epochas, all beginning with the letter C. Dean Prideaux, in his *Introduction to History*, has made use of the number *seven*, throughout his whole book; "not out of "affectation (as he tells us) but experience, as *most* "*easy for the memory*;" with others of the like nature, which serve at least to shew that the memory wants assistance, and that small helps are better than none. But of all the inventions made use of for this end, none has been found to contribute more to the assistance of the memory than that of *technical* verses; both as they generally contain a great deal in a little compass, and also because being once learned, they are seldom or never forgot. For the truth of which

I may venture to appeal to the weakest memories, whether they have not to the last found themselves in possession of that ever-memorable line,

Barbara Celarent Darii Ferio Baralipton.

Of this nature is the following method; the design of which is, not to make the *memory better*, but *things more easy to be remembered*; so that by the help of it, an ordinary, or even a weak memory, shall be able to retain what the strongest and most extraordinary memory could not retain without it. For, as he, who first contrived to assist the eye with a telescope, did not by that pretend to give sight to the blind, or make any alteration in the eye itself, but only to bring the objects nearer, that they might be viewed more accurately and distinctly; so neither is it pretended * by this art to teach those to remember every thing who never could remember any thing; or to make men in an instant skilful in sciences which before they were utterly unacquainted with; but only to enable them to retain, with *certainty* and *exactness*, what they have already a general and competent knowledge of: that they may not be obliged upon every occasion to have fresh recourse to their books or maps, or be under the tiresome necessity of reading the same things again and again, still forgetting them as fast as they read them.

To those who may object, of what use is it to be thus exact, and content themselves with an imperfect and confused remembrance of what they read, it might be answered, that such as think it of no use, need not, as I presume they will not, trouble themselves about it; this being designed for the benefit of those only who think it is of use; and who, even at the

* Hæc ars tota habet hanc vim, non ut totum aliquid cujus in ingeniis nostris pars nulla fit, pariat et procreet; verum ut ea, quæ sunt orta jam in nobis et procreata, educet atque confirmet. *Cicero de Oratore*, Lib. II. *Edit. C. Steph.* p. 182.

expence of a little pains, would remember if they could: but, besides this, I believe it will be agreed on all hands, that to instance in history only, a man who *has* an exact notion of time and place, finds incomparably more pleasure, and makes a speedier progress in that study, than he who *has not*.

I shall here beg leave to transcribe a passage from ADDISON'S *Dialogues, upon the Usefulness of Ancient Medals:* —"There is one advantage, says Eugenius, "that seems to me *very considerable*, which is the "great help to memory one finds in medals: for my "own part, I am very much embarrassed in the "names and ranks of the several Roman Emperors, "and find it difficult to recollect upon occasion the "different parts of their history: but your medallists, "upon the first naming of an emperor, will imme"diately tell you his age, family, and life. To re"member where he enters in the succession, they only "consider in what part of the cabinet he lies; and "by running over in their thoughts such a particular "drawer, will give you an account of all the remark"able parts of his reign."

If this be such a *considerable advantage* in medals, I hope it will be allowed that the following method is of some use, since by it a man may be enabled to remember when any emperor, from Julius Cæsar to Jovian, began his reign, and that as readily as you can name him, by the help of no more than *seven memorial lines*. The like he may do, with the same ease and readiness, by the Kings of England, and so proportionably for any other part of sacred or profane history. For, how impracticable soever it may seem at first view, I have reason to believe, that any reader of a common capacity may, by a regular proceeding and ordinary application, be able readily and exactly to answer *most*, if not *all*, the questions that can be proposed, from the following tables.

The manner in which I would advise him to proceed (after having premised that he must not be too

hasty at first, but make himself * master of one thing before he proceeds to another, beginning with such particulars as he has most occasion or inclination to retain) is this. First, let him learn to *explain* the several *memorial lines*, according to the method hereafter to be laid down, by consulting the tables to which they belong. 2. This done, let him, by looking upon the tables, learn to make out the lines; and 3. Let him charge his memory with them, by *frequent repetition*. By this means the words will become *familiar*, how harsh and uncouth soever they may appear at first; and he will find it as easy to know the diameter, distance, and magnitude of any planet; the particular time or age of any remarkable person or thing; the longitude and latitude of any place, and the like, as it is to remember their *names*: the whole art being in effect nothing more than this; *to make such a change in the* ending *of the name of a place, person, planet, coin*, &c. without altering the beginning *of it, as shall readily suggest the thing sought, at the same time that the beginning of the word, being preserved, shall be a* leading *or* prompting *syllable to the ending of it so changed.*

I would willingly here let the reader a little more into my meaning, which he may not otherwise so readily apprehend, lest he should think there is more difficulty in the matter than there really is. I would ask him, then, if he thinks he could remember to call CYRUS, Cyr*uts*; DANIEL, Dani*ull*; ALEXander the Great, Aléx*ita*; JULIUS Cæsar, Juli*os* Cæsar; or MAHOMet, Máhom*audd*. If he can but do this, he has nothing else to do (when he is once master of the

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* Assumendus usus paulatim, ut pauca primùm complectamur animo quæ reddi fideliter possint: mox per incrementa tam modica ut onerari se labor ille non sentiat, augenda usu et exercitatione multa continenda est, quæ quidem maxima ex parte memoriâ constat. *Quintilianus*, Lib. X. Edit. *Gibson*. *Ox*. p. 534.

general key, and knows what letters of the alphabet stand for what figures) in order to remember, without any possibility of being mistaken, that the years in which Cyrus, Alexander,* and Julius Cæsar founded their respective monarchies, were as follow:

	Before Christ.
Cyrus [Cyr*uts*]	536
Alexander [Aléx*ita*]	331
Julius Cæsar [Juli*os*]	46

And that the Mahometan æra, or flight of Mahomet, was A.D. 622. — In like manner for Geography. Does he think he could remember to call Madrid Madr*oy-t*, or Jerusalem Jeru*ta-ts*, or Blenheim Blenhe*bav*, or Thessaly Thess*jan*? This is all that is required, to remember that the degree of latitude of Madrid is about 40, and the * longitude about 3. The latitude of Jerusalem about 31, and the longitude 36; that Blenheim is in *Bavaria*, and that what was the ancient Thessaly is the present *Janna*. Thus the reader will observe, that all that he has to do, is for one word to remember another, which only varies from it a little in the *termination*.† And to make even this easier to be remembered, the *technical* words are thrown into the form of common Latin verse, or at least of something like it. For as there was no necessity to confine myself to any rules of *quantity* or *position*, I hope I need make no apology for the

* The reader is presumed to be so far acquainted with geography, as to be able to tell which is eastern and which is western longitude, when he is informed that the first meridian is fixed at London.

† In many words the variation is very small: as K. John K. J*ann*, Inachus In*akus*, SOlon So*lun*, Herodotus, Hero*dofus*, Plato Pla*tok*, Trajan Traj*ank*, Cleopatra Cleopa*tla*, Gordian Gor*din*, the battle of Marathon, Marath*ons*, Attila Atti*fla*, Crœsus Crœs*use*, Austin Aust*ins*, &c. Those which appear more difficult will be full as easy, when familiarised by use.

liberty I have taken in having, without regard to either, and perhaps now and then without so much as a regard to the just number of feet, only placed the words in such order as to make them run most easily off the tongue, and succeed each other in the most natural manner. But this by the way for the reader's encouragement.

In the mean time, till he can repeat the *memorial lines*, and to those who are not willing to give themselves any trouble at all in charging their *memory* with them, the *tables* themselves will not be without their use; of which it may be expected that I should give some account.

For the chronology and history I have chiefly consulted* Archbishop Usher's Annals, Marshall's Chronological Tables, the *Rationarium Temporum* of Petavius, Mr. Hearne's *Ductor Historicus*, and Bishop Beverege's *Institutiones Chronologicæ.* The succession of the Assyrian and Babylonian Monarchs, the Kings of Persia, Media, Syria, Egypt, &c. are taken from Dr. Prideaux's Chronological Tables, at the end of his Connection; the times of the flourishing of the Fathers, Heretics, Councils, &c. from Dr. Cave's *Historia Literaria.* The Roman Emperors, and the time of writing of the canonical books of the New Testament, from Mr. Eachard's Roman and Ecclesiastical Histories. The Legatine and Provincial Constitutions from Bishop Gibson's *Codex Juris Ecclesiastici.* The astronomical calculations are from Dr. Derham's Astro-Theology. I have also added Mr. Whiston's, from his Theory of the Earth. In the geographical part, my chief guide has been Dr. Wells's

* It may be some satisfaction to the reader, to know that Mr. Bedford (as he tells us in the Preface to his Scripture Chronology) *never* differs from Dr. Prideaux; and even from the creation of the world to the destruction of Jerusalem, never above five years from Archbp. Usher, the late Bishop of Worcester, or Mr. Marshall.

Treatise of Ancient and Present Geography, whose Maps may be consulted by the learner. For the coins, weights, and measures, I have chiefly been obliged to Dr. Arbuthnot's books and tables, not without consulting Bishop Cumberland, Dr. Bernard, and Bishop Hooper, and other writers upon that subject, of whom I have made what use I thought convenient. If any prefer other authors, who differ from these, they may easily apply the art to their favourite author, by a change of the words, according to the method laid down. And, indeed, when the reader is perfectly master of it, he would do well to form words for his own use, which perhaps he will sooner remember than those which I had formed for mine; my design being rather to give a specimen of what might be done by it, than a set of *complete* tables in the respective sciences. If some think I have been deficient in leaving out what they think worthy of remembering, others perhaps will think I have been too full. To both these I answer, that I impose no task upon my readers, nor desire to prevent their own improvements: they may add what they please, and pass by what they please. Nor do I think it at all necessary that they should be able to answer *every* particular in the following tables; only this I may venture to affirm, that if they once charge their memory with them, they will find them no burden, and that it is not only practicable, but easy to be done.

It is not to be expected that gentlemen, who have gone through the course of their studies, will trouble themselves to begin again anew, and go regularly through the *whole*; but it is submitted to those who have the education of young students in the universities and public schools, whether it would not be of some service towards facilitating the progress of their pupils and scholars in useful knowledge, to have them early and thoroughly acquainted with this small treatise. It is the advice of Quintilian, that boys should be used to repeat, as fast as possible, harsh and crabbed words and verses, purposely made diffi-

cult, in order to give them a more full and articulate pronunciation. His words are these: * *Non alienum fuerit exigere ab his ætatibus, quo sit absolutius os et expressior sermo, ut nomina quædam versusque affectatæ difficultatis, ex pluribus asperrime coëuntibus inter se syllabis catenatos et veluti confragosos quam citatissime volvant.* The frequent repetition of the following memorial lines would certainly answer *this* end, and at the same time a *much better*; and if I might also recommend, as he does, the *writing* of them too, in order to make the deeper impression, it would doubtless have a good effect, and boys would be treasuring up learning even before they were aware of it. * *Illud non pœnitebit curasse cum* scribere *nomina puer (quemadmodum moris est) cœperit, ne hanc operam in vocabulis* vulgaribus *et forte occurrentibus perdat. Protinus enim potest interpretationem linguæ secretioris quam Græci* γλώσσας *vocant, dum aliud agitur, ediscere, et inter prima elementa consequi rem postea proprium tempus desideraturam.* It may be sufficient to have just hinted these things to those whose more immediate province it is, and who are best qualified to judge what methods may most effectually contribute to the improvement of those under their care.

From the account I have given of it, the reader will observe, that the method here proposed is perfectly different from that of Simonides the Cean, so† famous among the ancients for being the first inventor of an art of memory, ‡ of whom both Tully and

* Institutiones Orat. Edit. Gibson. Oxon, p. 12.

† Σιμωνίδης Λεωπρέπου, ὁ Κεῖος, Ὁ ΤΟ ΜΝΗΜΟΝΙΚΟΝ ΕΥΡΩΝ ἐνίκησεν Ἀθήνησιν διδάσκων, καὶ αἱ εἰκόνες ἐστάθησαν Ἁρμοδίου καὶ Ἀριστογείτονος, ἔτη ΗΗ. —— Marmora Arundelia, !. l. 70.

De Simonide hoc vide Joannem Tzetzem, Chiliade I. cap. 24. Ubi victorias reportasse ait quinquaginta sex. Consule etiam Valerium Maximum, Lib. IV. cap. 7.

‡ Non sum tanto ego, inquit, ingenio quanto Themistocles fuit ut oblivionis artem quam memoriæ malim; gra-

Quintilian speak with respect, and of whose method of * *places* and *images* (*i. e.* of having a repository of ideas, a large house, or the like, divided into several apartments, in each of which you are to place in order a symbolical representation of the things which you would remember) they have given us a very full and particular account, as also of the occasion which first gave rise to it. What improvements have been made of this method by some modern authors, or in what manner or with what success others have set up to teach privately the art of memory, I am altogether ignorant. Having found my own method sufficient for myself, I had no inclination to look after any other. What use it may be of to the public, must be left to experience. The novelty of it may perhaps recommend it to the inquisitive and curious; and I desire nothing more than that into whose hands soever it may fall, they would not be prejudiced against it upon the account of its *seeming difficulty*,

tiamque habeo Simonidi illi Ceio quem primum ferunt artem memoriæ protulisse. Cicero De Oratore, Lib. II.

* Constat artificiosa memoria locis et imaginibus, &c. Cicero ad Herennium, Lib. III. Edit. Car. Steph. p. 30.

Loca discunt quam maxime spatiosa, multa varietate signata, domum forte magnam, et in multos diductam recessus. In ea quicquid notabile est animo diligentur affigitur, ut sine cunctatione ac mora partes ejus omnes cogitatio possit percurrere.——

——Tum quæ scripserunt, vel cogitatione complectuntur, et alio signo quo moneantur, notant. Quod esse vel ex re tota potest, ut de navigatione, militia: vel ex verbo aliquo. Nam etiam excidentes, unius admonitione verbi in memoriam reponuntur: sit autem signum navigationis, ut anchora; militiæ, ut aliquid ex armis. Hæc itaque digerunt: primum sensum vel locum vestibulo quasi assignant, secundum atrio, tum impluvia circumeunt, nec cubiculis modo aut exedris, sed stratis etiam similibusque per ordinem committunt. Hoc facto, cum est repetenda memoria, incipiunt ab initio loca hæc recensere, et quod cuique crediderunt, reposcunt, et eorum imagine admonentur, &c. Quintilian's Institutiones Orat. Lib. XI. Edit. Gibson. p. 561.

before any have made *trial* of it; being inclined to think, that to any one, who is at all acquainted with it, it will be found to be so far from being *really* difficult, that nothing can be more easy, or more obvious. The representation of numbers by letters of the alphabet hath been a thing in practice, more or less, almost in every language. The only thing wanting was to make that representation further useful, by substituting vowels, as well as consonants, for the numerical figures, in such manner and proportion, that any number might be formed into a word capable of being articulately pronounced, and consequently more perfectly remembered. Amongst the Jews indeed, of whose alphabet the vowels are no part, it was a practice, not only to abbreviate sentences and names of many words, by putting together the initial letters of those words, and making out of them an *artificial word** to express the whole; but also to make use of *natural* words, to represent numbers, when they could meet with such as happened to answer the number they wanted to express. We have several pieces of ingenuity of this kind in the frontispieces of their Bibles, where they give us the *year* of the edition in some word or sentence of scripture, the letters of which, according to their numerical value, make up the date. I have subjoined † some of them for

* As *Rambam* for R-abbi M-oses B-en M-aimon; *Ralbag* for R-abbi L-evi B-en G-erson; *Maccabees*, from the abbreviation of the words in the standard of Judas Maccabæus M-i C-amoka B-aëlim J-ehovah, i. e. *who is like unto Thee amongst the Gods, O Lord!* See Prideaux' Connection, Part II. Book 3. Of this nature is what the reader will meet with in the beginning of the geographical part of this method, page 48, &c.

† Sed non omittendum est, Judæos in librorum præcipue titulis, ad annum quo impressi sunt indigitandum, literas numerales alio atque quem tradimus ordine collocare. Enimvero vocem unam vel plures, easque vel scorsim, vel in sententia aliqua Biblica comprehensas excogitant, quarum literæ

the entertainment of the learned reader, from Bishop Beverege's *Arithmetice Chronologica*. And indeed I am not certain whether I owe not to observations of this kind, the first hint of this method, which I have carried so far, and which doubtless, like all other inventions, is still capable of further improvements.

What is added of the miscellany kind, is a small part of what I had drawn up for my own use, and shews how easily this art may be applied to almost every part of learning. If upon the whole this at-

utut dispositæ numerum propositum valeant. Ex gr. In Bibliis Sacris a Josepho Athiæ Amstelodami editis, tria occurrunt frontispicia, unum ad Pentateuchum, ad Prophetas alterum, tertium ad Hagiographa. Primum impressum dicitur שנת לשׁוני עט ספר מהיר לפק Anno computi minoris *lingua mea est stylus scribæ prompti*. Ps xlv. Ubi voces עט ספר ut virgulis superne notatæ annum indigitant quo Pentateuchus impressus fuit. Quotus autem fuit annus computi Judaici minoris statim invenitur, si omnes vocum istarum literæ una cum numerico earum valore ita disponantur ע 70 ט 9 ס 60 פ 80 ר 200. 419. Ergo annus erat 419 juxta computum Judæorum minorem, de quo videsis chronologicas nostras institutiones. Sic et prophetæ impressi dicuntur בשנת משא גיא חזון לפק. Anno *Onus vallis visionis* computi minoris. Is. xxii. Ubi literæ משא גא חזין valent 420. Frontispicium autem ad כתובים sive Hagiographa impressum est anno באצבע אלהים כתובים scripta Digito Dei, ubi primæ duæ literæ vocis כתובים annum eundem 420 significant. Nam ת valet 400, et כ 20. Hunc etiam in modum Talmud Basileæ impressum dicitur שנת פדות שלח לעמון Anno *redemptionem misit populo suo*. Ps. cxi. Ubi literæ vocis שלח valent 338. Denique Seder Tephilloth Hispaniensis sive Judæorum Hispanorum liturgia ingeniosissime impressa dicitur שנת הזאת Hoc Anno, *i. e.* Anno 413, quem literæ הזאת indigitant, Lib. I. c. 6.

tempt shall be found to contribute to the more speedy attainment of useful knowledge, and to give men of reading, instead of an imperfect and confused remembrance of what they read, a satisfactory certainty and exactness, as I cannot think the little time I have spent upon it ill bestowed in respect of my own improvement, so I shall be glad that it proves of as much benefit to others as I have found it to myself.

THE PUBLISHER WOULD BE HAPPY TO TREAT WITH ANY GENTLEMAN ABLE TO CORRECT AND MODERNIZE THIS WORK AGAINST A FUTURE EDITION.

RECOMMENDATORY CHARACTER

OF

GREY'S MEMORIA TECHNICA,

Written by the Reverend Mr. Lawson, some years Head Master of a Foundation Grammar School, at Wolverhampton; given in the preface of a work published by him for the use of his pupils.

THE probable reasons why GREY's MEMORIA TECHNICA *has not been more generally received in Grammar Schools, where any separate regard is paid to* History *and* Chronology, *are, that it abounds with matter which has not a strict relation to classical authors, and that it is extended to branches of knowledge, such as* Geography, Astronomy, *&c. where the necessity of the art is not so evident, and the difficulty of application much greater.*

In defence of this art as a subsidiary aid to young persons in History *and* Chronology, *I will not say, that by the help of it the weakest memory may be able to retain what the strongest could not retain without it; but I have no scruple in recommending it to those who wish to avoid the necessity of perpetual recurrence to chronological maps or tables, and who prefer accuracy and fidelity to confused recollection and imperfect remembrance. It does not indeed confer a new faculty, but it teaches us to manage with skill the capacity of the memory, and contrives such helps as greatly assist its natural powers.*

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CORRIGENDA.

At Page 8,	line 30,	read	Rómi*dub*.
14,	—— 3,	——	Wil-t*hó-sok*-*fai*.
17,	—— 20,	——	Re*hedap*.
18,	—— 5,	——	Reú*edap*.
24,	—— 11,	——	PSAMMINITUS.
	—— 13,	——	Psaminit*lel*.
25,	—— 17,	——	Dejo*pzou*.
31,	—— 27,	——	THRACE.
33,	—— 1,	——	Rómi*dub*.
	—— 17,	——	Rómi*dub*.
	—— 29,	——	Decemv*oly*.
34,	—— 16,	——	Decemv*oly*.
	—— 39,	——	Ner*ul*.
41,	—— 35,	——	Lactan*tyl*.
42,	—— 19,	——	Tacit*ázei*.
45,	—— 6,	——	Hyg*alo*.
79,	—— 32,	——	Æoæan.
92,	—— 4,	——	Dist-Sol-sémi*da-syz*.
136,	—— 34,	——	Al Thauf.
174,	—— 31,	——	HE 7th-*feil*.
215,	—— 27,	——	Batchiserai.

MEMORIA TECHNICA.

SECTION I.

THE principal part of this method is briefly thus: To remember any thing in history, chronology, geography, &c. a word is formed, the beginning whereof being the first syllable or syllables of the thing sought, does, by frequent repetition, of course draw after it the latter part, which is so contrived as to give the answer. Thus, in history, the Deluge happened in the year before Christ two thousand three hundred forty-eight; this is signified by the word Del*etok*: Del standing for DELuge, and *etok* for 2348. In astronomy, the diameter of the sun (SOLIS DIAMETER) is eight hundred twenty-two thousand, one hundred and forty-eight English miles; this is signified by Soldi-*ked-áfei*; Soldi standing for the diameter of the sun, *ked-áfei* for 822,148; and so of the rest, as will be shewn more fully in their proper places.

The first thing to be done is to learn exactly the following series of vowels and consonants, which are to represent the numerical figures, so as to be able, at pleasure, to form a *technical* word, that shall stand for any number, or to resolve a word already formed into the number which it stands for:

The Key.	*a*	*e*	*i*	*o*	*u*	*au*	*oi*	*ei*	*ou*	*y*	*g*	100
	1	2	3	4	5	6	7	8	9	0	*th*	1000
	b	*d*	*t*	*f*	*l*	*s*	*p*	*k*	*n*	*z*	*m*	1,000,000
	g	*h*	*j*	*r*	*v*	*x*	*qu*	*c*	*w*	*m*		

Here *a* and *b* stand for 1, *e* and *d* for 2, *i* and *t* for 3, and so on. The last line of the key is only given to shew how the technical words may be still further varied, though the said line is not used in any part of this work except only once in page 7.

See also other signs at page 4.

These letters are assigned arbitrarily to the respective figures, and may very easily be remembered. The first five vowels in order naturally represent 1, 2, 3, 4, 5. The diphthong *au*, being composed of *a* 1 and *u* 5, stands for 6; *oi* for 7, being composed of *o* 4 and *i* 3; *ou* for 9, being composed of *o* 4 and *u* 5. The diphthong *ei* will easily be remembered for *eight*, being the initials of the word. In like manner for the *consonants*, where the initials could conveniently be retained, they are made use of to signify the number; as *t* for three, *f* for four, *s* for six, and *n* for nine. The rest were assigned without any particular reason, unless that possibly *p* may be more easily remembered for 7 or *Septem*, *k* for 8 or ὀκτὼ, *d* for 2 or *duo*, *b* for 1, as being the first consonant, and *l* for 5, being the Roman letter for 50, than any others that could have been put in their places.

The reasons here given, trifling as they are, may contribute to make the series more readily remembered; and if no reason at all was assigned, I believe it will be granted that the representation of nine or ten numerical figures by so many letters of the alphabet, can be no great burthen to the memory.

The series therefore being perfectly learned, let the reader proceed to exercise himself in the formation and resolution of words in this manner:

10	325	381	1921	1491	1012	536	7967
az	*tel*	*teib*	*aneb*	*afna*	*bybe*	*uts*	*pousoi*
431	553	680	&c.				
fib	*lut*	*seiz*	&c.				

And as, in numeration of larger sums, it is usual to point the figures at their proper periods of thousands, millions, billions, &c. for the more easy reading of them, as 172,102,795, one hundred seventy-two millions, one hundred two thousand, seven hundred ninety-five; so, in forming a word for a number consisting of many figures, the syl-

lables may be so conveniently divided, as exactly to answer the end of pointing. Thus, in the instance before us, which is the diameter of the orbit of the earth in English miles, the *technical* word is Dorbtór-*boid-áze-poul;* the beginning of the word, Dorbtér, standing for the diameter of the orbit of the earth, (D-iameter ORbitæ TERræ,) and the remaining part of it, *boid-áze-poul*, for the number 172,102,795.

N.B. Always remember that the diphthongs are to be considered but as *one letter*, or rather, as representing only *one figure*. Note also, that *y* is to be pronounced as *w* for the more easily distinguishing it from *i*, as *syd*=602, pronounce *swid*, *typ*=307, pronounce *twip*.

Observe, that the same date or number may be signified by different words, according as vowels or consonants are made choice of, to represent the figures, or to begin the words with, as,

325 *tel*, or *idu:* 154 *buf*, or *blo*, or *alf*, or *alo:*
93.451 *ni-ola*, or *out-fub*, or *ni-fla*, or *out-olb*, &c.

This variety gives great room for choice in the formation of words, of such terminations as by their *uncommonness* are most likely to be remembered, or by any *accidental relation* or *allusion* they may have to the thing sought. Thus the year of the world in which Æneas is supposed to have settled in Italy is 2824; but as this may be expressed either by *ekef* or *deido*, I choose rather to join *deido* to Æneas, and make the technical word *Ænedeido* than *Ænekef*, for a reason which I think is obvious: Thus King John began his reign A.D. 199. (one thousand being understood to be added, as I shall shew hereafter;) but as this may be expressed by *anou* or *boun*, or *ann*, I make choice of the last, for then it is but calling him *Jann* instead of John, and you have the time almost in his name. Also Inachus King of Argos began his reign in the year before Christ 1856; with a very small variation in the

spelling, it is his name Ina*kus*. More instances of this kind see in page vi. of the Introduction.

To go on with our art: it is further to be observed, that *z* and *y* being made use of to represent the cypher, where many cyphers meet together, as in 1000, 1,000,000, &c. instead of a repetition of *azyzyzy*, which could neither be easily pronounced nor remembered, *g* stands for hundred, *th* for thousand, and *m* for million. Thus *ag* will be 100, *ig* 300, *oug* 900, &c. *ath* 1000, *oth* 4000, *otho* or *othf* 4004, *peg* 7200, *dig* 2300, *lath* 51000, *am* 1000000, *azmoth* 10.004,000, *sumus* 65.000,056, *loum* 59.000,000, &c. The solid content of the earth (TERræ MAGNITudo) is two hundred sixty-four thousand, eight hundred fifty-six millions of cubic miles; this is expressed by the word Termagnit-*éso-klaum*; Termagnit standing for Terræ Magnitudo; *éso-klaum* for 264,856.000,000, the number of cubic miles.

It will be sometimes also of use to be able to set down a fraction, which may be done in the following manner: let *r* be the separatrix between the numerator and the denominator, the first coming *before*, the other *after* it; as *iro* $\frac{3}{4}$: *urp* $\frac{5}{7}$: *pourag* $\frac{79}{100}$ or ,79: *north* $\frac{94}{1000}$ or ,094, &c. Where the numerator is 1, or unit, it need not be expressed, but begin the fraction with *r*, as $\frac{1}{2}$ *re*, $\frac{1}{3}$ *ri*, $\frac{1}{4}$ *ro*, &c. So in decimals, ,01 or $\frac{1}{100}$, *rag* ,001 or $\frac{1}{1000}$ *rath*.

Thus I have given the reader a general view of the principal part of this method, and now proceed to shew how I have applied it to history, geography, astronomy, and other parts of useful learning: and, having explained a line or two in each, leave the rest to his own industry and sagacity; and though the geographical parts are not, in this edition, completely modernized, according to the present divisions of the earth, neither are the recent discoveries in astronomy noticed here; yet it is hoped that sufficient is done to answer the student's purpose.

SECTION II.

The Application of this Art to Chronology and History.

THE ages of the world before our Saviour's time are by chronologers generally divided into six: the first, from the creation to the deluge; the second, from the deluge to the call of Abraham, &c. according to the following periods:

		Before Christ.
1.	The Creation of the world	4004
2.	The universal Deluge	2348
3.	The call of Abraham	1921
4.	EXodus, or the departure of the Israelites from Egypt	1491
5.	The foundation of Solomon's Temple	1012
6.	Cyrus, or the end of the captivity	536
	The birth of Christ.	

All this is expressed in one line belonging to Tab. I. as follows:

Cr*othf*, Dél*etok*, Ab*aneb*, Ex*áfna*, Têm*bybe*, Cyr*uts*.

Cr denotes the Creation, *othf* 4004, Del the Deluge, Ab the calling of Abraham, Ex Exodus, Tem the Temple, and Cyr Cyrus. The technical endings of each represent the respective year according to the rules already laid down.

I shall explain two lines more.

Nicsilcon-ári*tel*, Codathé-ma*teib*, Ephcethe-nés*ftb*, Chállemar-eud*íola*, Covijúst-O*lut*, C-ágcopo-mon*seiz*.

These two lines are a short history of the first six General Councils; and every syllable has its distinct signification. The *first* represents the place where it was held; the *second* shews who was pope at that time; the *third* under what emperor; the *fourth* against what heretic; the *fifth*, in what year of our Lord. Thus the first word is Nicsilcon-ári*tel*;

Nic denotes the Council of Nice, sil Pope SILvester, con the Emperor CONstantine, ari the heretic ARius, *tel* the year 325. The second word is Codathé-ma*teib*; Co denotes the Council of COnstantinople, da Pope DAmasus, *the* the Emperor THEodosius, ma the MACedonians, *teib* 381. The third is Ephcethe-nés*fib*; Eph the Council of EPHesus, ce Pope CElestine, *the* the Emperor THEodosius, junior, nes the NEStorians, *fib* the year 431. The fourth is Chállmar-eudi*ola*; Chal the Council of CHALcedon, le Pope LEo, mar the Emperor MARcian, eudi the errors of Eutyches and Dioscorus, *ola* the year 451. The fifth is Covijú*t*-*Olut*; Co stands for COnstantinople, vi Pope VIgilius, just the Emperor JUSTinian, O the errors of Origen, *lut* the year 553. The sixth is C-ágcopo-mon*seiz*; C stands again for Constantinople, ag for Pope AGatho, copo the Emperor COnstantine POgonatus, mon the MONothelites, *seiz* the year 680.

By this specimen the reader will be able to judge what he is to expect from the following Essay, and what it will cost him to make himself master of it. I would by no means have him discouraged at the difficulty which, at first view, he may apprehend there is, in charging his memory with so many harsh and barbarous lines; for, though they may appear to be so to a person unacquainted with them, and, as such, difficult to be remembered, yet when frequent repetition has made them familiar, what can be more easy than to supply the remaining part of a word, which you are prompted with the beginning of? as, for instance, to complete Cr— Del—Ab— Ex—Tem— Cyr— with their technical endings, and make them up into the following line, already explained,

Cro*thf*, Dél*etok*, Ab*aneb*, Ex*áfna*, Tém*bybe*, Cy*ruts*.

I have only further to desire the reader to take notice, that for his greater ease, that part of the memorial words, which represents the numbers or dates, is distinguished by *italic* characters; that part which is *roman* answers to the small capitals in the tables.

TABLE I.

General Epochas and Æras, Ecclesiastical and Civil.

	Before Christ.
The CREATION of the world [Cro*thf*]	4004
The universal DELUGE [Déle*tok*]	2348
The call of ABRAHAM [Ab*aneb*]	1921
EXodus of the Israelites [Exá*fna*]	1491
The foundation of Solomon's TEMPLE [Tém*bybe*]	1012
CYRUS, or the end of the captivity [Cyr*uts*]	536
The destruction of TROY [Tróy*abeit*]	1183
The first OLYMPiad [Olym*pois*]	776
The building of ROME [Rom*put*]	753
ÆRA of NABONASsar [Ærnabonás*pop*]	747
The PHILippic æra, or the death of Alexander [Phíl*ido*]	324
The æra of CONTRACts, or of the Seleucidæ, called in the book of *Maccabees* the æra of the kingdom of the Greeks [Contrac*tad*]	312
	After Christ.
The DIOCLEsian æra, or the æra of Martyrs [Dioclés*eko*]	284
The æra of the Hegira, or flight of MAHOMet [Máhom*audd*]	622
The æra of YEZdegird, or the Persian æra [Yéz*sid*]	632

The Memorial Lines.

Cro*thf*, Dél*etok*, Ab*uneb*, Exá*fna*, Tém*byhe*, Cyr*uts*.
Tróy*abeit*, Olym*pois*, Rom*put* & Ærnabonás*pop*,
Phíl*ido*, Contrác*tad*+Dioclés*eko*, Máhom*audd*, Yéz*sid*.

The above memorial lines a little varied according to the last line of the key given in page 1.

Cro*ymf*, Dél*etok*, Ab*aneb*, Exá*fna*, Tém*bybe*, Cyr*tis*.
Tróy*abeit*, Olym*quois*, Rom*put* & Ærnabonás*pop*,
Phil*teo*, Contrác*jad*+Dioclés*eko*, Máhom*sed*, Yéz*sid*.

THOUGH I have no where (except in the ages of the patriarchs before Abraham) made use of any other æra than that of the years before and after Christ, because those being known, it is easy to find the correspondent year of any other æra, according to the common rules laid down in books of chronology, which I shall suppose the reader to be acquainted with; yet, in the more eminent epochas, that he may be able, at first glance, to have a notion of the time of any thing or person which he may meet with in authors making use of the Julian period and the æra of the creation of the world, I have also added them in the following table.

TABLE II.

	Julian Period.	Anno Mundi.
The CREATION of the world	710	1
The universal DELUGE	2366	1656
The call of ABRAHAM	2793	2083
EXodus of the Israelites	3223	2513
The foundation of Solomon's TEMPLE	3702	2992
CYRUS, or the end of the captivity	4178	3468
The destruction of TROY	3531	2821
The first OLYMPIAD	3938	3228
The building of ROME	3961	3251
The birth of CHRIST	4714	4004

The Memorial Lines.

Créppaz, Delpétsau, Démusus, Abmezki, Al [illegible],
Expidet, Exmélat, Tempipze, Temménnc, Cymúntosk,
Cyrpoboik, Troypilta, Trómkeb, Olympnik, Olimtkek,
Rompénsa, Rómmidub, Chrismúndetif, Chrisperifotho.

EXPLANATION.

The first syllable points out the epocha as before; the addition of *p* or *peri* denotes that it is the year of the Julian period; the addition of *m* or *mund*, that it is the year of the world.

TABLE III.

Chronological and Historical Miscellanies before Christ.

	Before Christ.
Building of the tower of Babel [Báb*edit*]	2233
Mizraim settles in Egypt [Miz*dakk*]	2188
Destruction of Sodom and Gomorrah [Sód*akoup*]	1897
Death of Joseph [Joséph*asil*]	1635
Annus Sabbaticus, or the first Sabbatical year [AnS*afff*]	1444
Saul first king of Israel [Saul*áznu*]	1095
Jeroboam, or the defection of the ten tribes [Jéro*noil*]	975
Salmaneser King of Assyria takes Samaria, and extinguishes the kingdom of Israel, [Salm*peb*]	721
Holofernes invadeth Judæa, and is slain by Judith [Holofé*slu*]	655
Nineveh destroyed by the Medes and Babylonians [Ninév*sad*]	612
Jehoiakim taken prisoner by Nebuchadnezzar, from whence began the 70 years captivity of the Jews [Jehoía*sys*]	606
Zedekiah sent in chains to Babylon, and Jerusalem utterly destroyed by Nebuzaradan, captain of the guard to Nebuchadnezzar; the end of the kingdom of Judah [Zed*leik*]	588

[N. B. The kingdom of Israel [Is*relo*] / The kingdom of Judah [Jud*osk*] lasted 254 / 468 years.]

The Babylonians having revolted from Darius Hystaspes, are besieged by him, and Babylon taken, after a siege of 20 months, by the stratagem of Zopyrus [Babdárhy*las*]	516
Sardis burnt by the Athenians, in confederacy with the Ionians, which gave the first rise to the Persian war against the Greeks [Sardug]	500

	Before Christ.
ZOROASTRES appears at the Persian court [*Zoroafne*]	492
ESTHER made concubine to Ahasuerus [Esth*osa*]	461
The feast of PURIM instituted in memory of the defeat of Haman's plot for the destruction of the Jews [Pur*olt*]	453
EZRA sent to be governor of Judæa [Ezr*olk*]	458
NEHEMIAH sent governor to Judæa, rebuilds the walls of Jerusalem [Nehemi*ffu*]	445
The temple on Mount GERIZIM began to be built by Manasseh [Geriz*ózei*]	408
The translation of the SEPTUAGINT [Sept*epoi*]	277
JUDAS Maccabæus [Jum*ass*]	166

The Memorial Lines.

Bábed*it* & Mizd*akk*, Sód*akoup*, Joséph*asil*, AnS*afff*,
Saul*áznu*, Jéro*noil*, Salm*peb*, Holofé*slu*, Niné*vsud*,
Jehoías*ys*, Zed*leik*, [*duravit* Isr*clo*, Jud*osk*]
Babdárhy*las*, Sard*ug*, Zoroa*fne*, Esth*osa*, Pur*olt*,
Ezr*olk*, Nehemi*ffu*, Geriz*ózei*, Sept*epoi*, Jum*ass*.

TABLE IV.

Chronological and Historical Miscellanies after Christ.

	After Christ.
DISPERSIO JUDÆORUM, or the destruction of Jerusalem by Titus [Disp-jud*pa*]	71
LUCIUS of Britain, the first Christian king [Lúci*bup*]	157
ZENOBIA Queen of Palmira led in triumph to Rome by Aurelian [Zenob*doid*]	272
ECCLESIÆ PAX, or the establishment of Christianity by Constantine [Eccle si-pax*tad*]	312
St. ALBAN the British Protomartyr [Alban*tyt*]	303
CLOVIS the first Christian king of France [Clóv*oka*]	481
LINGUA LATINA, or the Latin tongue ceased to be commonly spoken in Italy [Ling-lat*leip*]	587

	After Christ.
AUGustine the monk, sent by Gregory the Great from Rome, converts ETHELbert King of Kent [Aug-ethel*únau*]	596
CHARLEMagne declared Emperor of the West [Charlm*eig*]	800
The CROISade, or Holy War [Crois*úznu*]	1095
HYBernia, or the conquest of Ireland [Hyb-*aboid*]	1172
OTToman the founder of the present Turkish empire [Ott*adoup*]	1297
The mariner's COMPass found out [Comp*atze*]	1302
The PAPal seat removed to A Vignon [Pap-av*atyl*]	1305
Walter LOLlard with many of his followers burnt in Austria, for opposing the Romish superstitions [Lol*atub*]	1351
GUNPowder invented in Germany by a monk [Gunp*átfo*]	1344
TAMerlane the Tartar overcomes BAJAzet the Turk, and puts him in an iron cage. (The Great MOGul is descended from him.) [Tambaj*atóun* Mog.]	1399
SCANDERberg Prince of Epirus famous for his victories over the Turks [Scander*boft*]	1443
The invention of PRINting [Prin*afon*]	1449
CONSTANTINople taken by the Turks, and an end put to that empire [Constantino*bóli*]	1453
Christopher COLUMbus, a native of Genoa, discovered Cuba and Hispaniola [Colum*bont*]	1493

N. B. The southern continent of America was discovered about four years after by Americus Vespusius, from whom it took its name.

The Memorial Lines.

Disp-jud*pa*, Lúci-*bup*, Zenób*doid*, Ecclesi-pax*lad*,
Alban*yl*, Clóv*oka*, Ling-lat*leip*, Aug-ethel*únau*,
Charlm*eig*, Crois*úznu*, Hyb*aboid*, Ott*adoup*, Comp*atze*,
Pap-av*atyl*, Lol*atub*, Gunp*átfo*, Tambaj*atóun* [Mog,]
Scander*boft*, Prin*afon*, Constantino*bóli*, Colum*bont*.

TABLE V.

The Regal Table of England since the Norman Conquest, and some of the most remarkable Princes before it.

	Before Christ.
CASIBELAUNUS chosen chief commander by the Britons against the invasion of Julius Cæsar [Casibel*ud*]	52
	After Christ.
Queen BOADICEA, the British heroine, being abused by the Romans, raises an army and kills 7000 [Bóad*aup*]	67
VORTIGERN invited the Saxons to the assistance of the Britons against the Scots and Picts [Vortig*fos*]	446
HENGIST, the Saxon, erected the kingdom of Kent, the first of the heptarchy [Heng*ful*]	455
King ARTHUR famous for his powerful resistance and victories over the Saxons [Arth*laf*]	514
EGBERT, who reduced the heptarchy, and was first crowned sole monarch of England [Egb*ekek*]	828
ALFRED, who founded the University of Oxford [Alfr*ékpe*]	872
CANUTE the Dane [Can*bau*]	1016
Edward the CONFESSOR [Confés*fe*]	1042

WILLIAM the CONQR. [Wil-con*sau*]	*Oct.* 14.	1066
William RUFUS [Ruf*koi*]	*Sept.* 9.	1087
HENRY I. [Hen*prog*]	*Aug.* 2.	1100
STEPHEN [Steph*bil*]	*Dec.* 1.	1135
HENRY the SECOND [Henséc*buf*]	*Oct.* 25.	1154
RICHARD I. [Ric*bein*]	*July* 6.	1189
JOHN [J*aun*]	*April* 6.	1199
HENRY the THIRD [Henth*das*]	*Oct.* 19.	1216
EDWARD I. [Ed*doid*]	*Nov.* 16.	1272
EDVARDUS SECUNDUS [Edsé*typ*]	*July* 7.	1307
EDVARDUS TERTIUS [Edter*tes*]	**Jan.* 25.	1326-7

* That is Edward the third began his reign on January 25, 1326, according to the old stile, (when the year was reckoned to begin on March 25,) but agreeable to the new style, 1327, calculating the year from the 1st of January

Richardus secundus [Risetóip]	*June* 21. 1377
Henry the fourth [Hefotoun]	*Sept.* 29. 1399
Henry the fifth [Hefifúd]	*Mar.* 20. 1412-3
Henry the sixth [Hénsifed]	*Aug.* 31. 1422
Edvardus quartus [Edquarfauz]	*Mar.* 4. 1460-1
Edward the fifth } Efi-Rokt	*April* 9. 1483
Richard III. } Efi-Rokt	*June* 22. 1483
Henricus septimus [Hensépfeil]	*Aug.* 22. 1485
Henricus octavus [Henoclyn]	*April* 22. 1509
Edvardus sextus [Edsexlos]	*Jan.* 28. 1546-7
Mary [Marylut]	*July* 6. 1553
Elisabeth [Elsluk]	*Nov.* 17. 1558
James I. [Jamsyd]	*Mar.* 24. 1602-3
Carolus primus [Caroprimsel]	*Mar.* 27. 1625
Carolus secundus [Carsecsok]	*Jan.* 30. 1648-9
James II. [Jamseif]	*Feb.* 6. 1684-5
William and Mary [WilMseik]	*Feb.* 13. 1688-9
Anne [Anpyb]	*Mar.* 8. 1701-2
George I. [Gëobo]	*Aug.* 1. 1714
George II. [Gëosecdoi]	*June* 11. 1727
George III. [Gëothpauz]	*Oct.* 25. 1760
George Prince of Wales, (Regent) [Gëo-Pregkab]	*Feb.* 6. 1811

The Memorial Lines.

Casibel*ud*, Bóad*aup*, Vortig*fos*, Heng*fal* & Arth*laf*.
Egbe*kek*, Alfr*ékpe*, Can*bau*, Confés*fe*,——
—— Wil-con*sau*, Ruf*kol*, Hen*prag*,
Steph*bil*&Hens*échuf*, Rich*bein*, J*ann*, Henth*aus*&Edd*oid*,
Edse*lyp*, Edter*les*, Rise*tolp*, Hefo*toun*, Hefif*úd*que,
Hensi*fed*, Edquar*fauz*, Efi-R*okt*, Hensép*feil*, Henoc*lyn*,
Edsex*los*, Mary*lut*, El*sluk*, Jam*syd*, Caroprim*sel*,
Carsec*sok*, Jam*seif*, WilM*seik*, An*pyb*, Gëo*bo*—*doi*—
—*Pauz*, Gëo-Preg*kab*——

N. B After Canute inclusive, one thousand is to be added to each. Which it was thought unnecessary to express, as being a thing almost impossible that any one should mistake.

If it be desired to remember in what month, and

day of the month, each king began his reign, that may be done by the following lines:

Wil-*tbó*-*sou*-*fat*, Steph-d*a*, Jam-ch*ef*-f*au*, Ri-l*s*-j*eb*-*ed*, El-n*ap*,
Hen-g*é*-*tel*-*an*-sez-ch*en*-*gib*-*ged*-p*ed*, Geor-g*á*-j*ab*, An-ch*ei*,
Car-ch*ep*-r*iz*, Mar-l*s*, John-p*s*, Ed-n*ás*t-l*oi*-r*él*-cho-p*ou*-r*ek*que.

EXPLANATION.

The *italic* letters represent the day of the month; the letter immediately preceding represents the month itself, r standing for Janua*r*y, f for *F*ebruary, ch for Mar*ch*, p for A*p*ril, m for *M*ay, j for *J*une, l for Ju*l*y, g for August, s for *S*eptember, t for Oc*t*ober, n for *N*ovember, and d for *D*ecember.

Thus Steph-d*a*, Steph King Stephen, d*a* Dec. 1st. El-n*ap*, El Elizabeth, n*ap* Nov. 17. In words of three or more syllables, the first syllable stands for all the kings of the same name, and the following syllables in order to answer to the first, second, third, &c. of that name. So Jam-ch*ef*-f*au*; Jam denotes James I. & II. ch*ef* (viz. March 24.) belongs to James I. and f*au* (viz. Feb. 6.) to James II. So Ri-l*s*-j*eb*-*ed*; Ri denotes all the Richards, l*s* (viz. July 6.) belongs to Richard I. j*eb* (viz. June 21.) to Richard II. and *ed* (viz. 22. of the same month) to Richard III.

If this be thought either too difficult or too minute, the reader may pass it over.

TABLE VI.

Chronological Miscellanies since the Conquest.

	After Christ.
Jerusalem regained from the Turks and Godfrey of Bulloigne made king of it [God-bul*nou*]	1099
The Inquisition first erected against the Albigenses [Inquis*ded*]	1222
The Confirmation of Magna Charta by King Henry III. [Chart*eel*]	1225

Wat TYLER's rebellion suppressed [Tyl*ika*] . 1381
Jack CADE's rebellion suppressed [Cade*fly*] 1450
MARtin LUTHER began to preach in Germany against indulgences, and other errors of the church of Rome [Mar-luth*lap*] 1517
The name of PROTestants first began on occasion of the protestation the Lutherans made against the decree of the chamber of Spire against them [Prot*alen*] 1529
The SMALCALdan league, or agreement made between the Protestants of Germany for their mutual defence, at Smalcald [Smalcal*loz*] 1540
The Council of TRENT began DEC. 13. [Tren-dec*at-alfu*] 1545
The MAssacre of Protestants at PARis [Mass-par*aloid*] 1572
The UNited provinces, under the protection of William, Prince of Orange, throw off the Spanish yoke [Un-p*loin*] 1579
The SPanish INVasion [Sp-inv*ukk*] . 1588
The GunPOWDer treason [Powd*syl*] 1605
The famous rebellion at Naples, on occasion of the grievous excises, headed by MASSANIELlo [Masaniel*sop*] 1647
Oliver CROMwell usurped the government of England, under the name of Protector [Crom*sli*] 1653
The island of JAMAICA in America taken by the English [Jamaic*aull*] 1655
CROMwelli MORs (death) [Crom-mor*suk*] 1658
GIBRAltar taken (capta) by the English [Gib-ra*pzo*] 1704

The Memorial Lines.

God-bul*nou*, Chart*eel*, Inquis*ded*, Tyl*ika*, Cade*fly*,
Mar-luth*lap*, Prot*alen*, Smalcal*loz*, Tren-dec*at-alfu*,
Mass-par*aloid*, Un-p*loin*, Sp-inv*ukk*, Powd*syl*, Massaniel*sop*,
Crom*sli*, Jamaic*aull*, Crom-mor*suk*, capta Gibra*pzo*.

N. B. A thousand is to be added as above, where it is not expressed.

TABLE VII.

The Patriarchs before and after the Flood.

	Anno Mundi.	Age.
Adam [Ad*niz*]	1	930
Seth [Seth*áty-nad*]	130	912
Enos [En*dil-nyl*]	235	905
Cainan [Cai*tel-naz*]	325	910
Mahalaleel [Mahala*toul-koul*]	395	895
Jared [Jar*bsy-naud*]	460	962
Enoch [Ench*séd-isu*]	622	365
Methuselah [Methu*seip-naun*]	687	969
Lamech [La*koif-poip*]	874	777
Noah [Noach*azús-nuz*]	1056	950
Shem [Shem*bulk-aug*]	1558	600
Arphaxad [Ar*aslei-fik*]	1658	438
Salah [Sal*asout-ott*]	1693	433
Heber [Heb*aped-óso*]	1722	464
Peleg [Pel*apúp-etou*]	1757	239
Reu [Reu*apeip-din*]	1787	239
Serug [Ser*akán-diz*]	1819	230
Nahor [Nahor*akón-hok*]	1849	148
Terah [Ter*akoik-dyl*]	1878	205
Abraham [Ab*ezyk-boil*]	2008	175
Isaac [Is*ebyk-beiz*]	2108	180
Jacob [Jácob*ebauk-bop*]	2168	147

The Memorial Lines.

Ad*niz*, Seth*áty-nad* ———
——— En*dil-nyl*, Cai*tel-naz*, Mahala*toul-koul*,
Jar*bsy-naud* ———
Ench*séd-isu*, Methu*seip-naun*, La*koif-poip*, Noach-*azús-nuz*,
Shem*bulk-aug*, Ar*aslei-fik*, Sal*asout-ott*, Heb*aped-óso*,
Pel*apúp-etou*, Reu*apeip-din*, Ser*akán-diz*, Nahor-*akón-bok*,
Ter*akoik-dyl*, Ab*ezyk-boil*, Is*ebyk-bciz*, Jácob*ebauk-bop*.

TABLE VIII.

The Patriarchs, &c. according to their Years before Christ.

		Before Christ.
ADAM, or the CReation, [Adamcr*othf*]		4004
SETH s. [Seth*ikoif*]	Born	3874
ENOS s. [Enos*ipaun*]		3769
CAInan s. [Cai*tspou*]		3679
MAHALAleel s. [Mahala*tsyn*]		3609
JARed s. [Jar*ilof*]		3544
ENOCH s. [Ench*tike*]		3382
METHUSelah s. [Methus*itap*]		3317
LAMech s. [Lam*ibiz*]		3130
NOah s. [N*oenok*]		2948
SHem s. [Sh*effs*]		2446
ARPHaxad s. [Arph*etos*]		2346
SALah s. [Sal*dibb*]		2311
HEBer s. [Héb*deka*]		2281
PELEG s. [Pelég*edop*]		2247
REU s. [Rêu*edap*]		2217
SERUG s. [Serûg*daku*]		2185
NAHOR s. [Nahr*dall*]		2155
TERah s. [Ter*ebes*]		2126
ABRAham s. [Abrám*anous*]		1996
Isaac s. [Is*akous*]		1896
Jacob s. [J*akip*]		1837
LEVi s. [Lev*apus*]		1756

The reader is desired to take notice, that in this and the following tables, (where it could be done consistently with the intended brevity,) the relation which every person bore to him who immediately goes before, is signified by a single letter; s standing for son or sister, b for brother, n for nephew or niece, u for uncle, g for grandson, m for mother. So the s after Enos shews that he was the son of Seth, and so on.

The Memorial Lines.

Adamcr*othf*, Seth*ikoif* ———
Enos*ipaun*, Cai*tspou*, Mahal*atsyn*, Jar*ilof*, Ench*tike*, Methus*itap*, Lam*ibiz*, N*oenok*, Sh*effs*, Arph*etos*, Sal*dibb*, Héb*deka*, Pelé*gedop*, Ré*uedap*, Serúg*daku*, Nahr*dall*, Ter*ebes*, Abrám*anous*, Is*akous*, J*ukip*, Lev*apus*que.

TABLE IX.

The Judges of Israel, from the Death of Moses to Samuel.

	Before Christ.
Moses moritur (Dies) [Mos-m*ola*, or Mos-d*ola*]	1451
Joshua [Jósh*fol*]	1445
Othoniel [Oth*ózu*]	1405
Ehud [Ehu*tel*]	1325
Deborah [Debo*deil*]	1285
Gideon [Gi*dol*]	1245
Abimelech [Abm*ets*]	1236
Thola [Thl*ett*]	1233
Jair [Jaï*daz*]	1210
Jephtha [Jepht*akk*]	1188
Ibzan [Ibz*âke*]	1182
Elon [Elo*boil*]	1175
Abdon [Abdon*aso*]	1164
Eli [Eli*bup*]	1157
Samuel [Sam*bap*]	1117

The Memorial Lines.

Mos-m*ola*, Jósh*fol*, Oth*ózu*, Ehu*tel*, Debo*deil*, Gi*dol*, Abm*ets*,
Thl*ett*, Jaï*daz*, Jepht*akk*, Ibz*âke*, Elo*boil* & Elí*bup*, Abdon*aso*, Sam*bap* ———

N. B. One thousand is to be added in giving an account of the dates, though not expressed in the letters, signifying the figures of this table. The dates affixed to the Judges before Abimelech are supposed to relate, not to the beginning of their presiding over Israel, but to the end of the *rest* given by them.—*Vide* the preface to *Petavii Rationarium*.

TABLE X.

Kings of all Israel.

	Before Christ.
SAUL [Sau*laznu*]	1095
DAVID [Dav*azul*]	1055
SOLOMON s. [Solom*ázal*]	1015

The Defection of the Ten Tribes,	975

Kings of Judah.

REHOBOAM s. [Reho*noil*]	975
ABIJAM s. [Abí*nup*]	957
ASA s. [Asa*nul*]	955
JEHOSAPHAT s. [--hosapha*nbo*]	914
JEHORAM s. [--hor*kein*]	880
AHAZIAH s [Ahazi*kku*]	885
ATHALIAH m. [Athli*kko*]	884
JEHOAASH gr. s. [--hoaash*koik*]	878
AMAZZIAH s. [Amaz*kin*]	839
UZZIAH or AZARIAH s. [Uz-azari*kby*]	810
JOTHAM s. [Joth*puk*]	758
AHAZ s. [Aház*pod*]	742
HEZEKIAH s. [Hese*pep*]	727
MANASSEH s. [Mans*óut*]	698
AMON s. [Amón*sot*]	643
JOSIAH s. [Josia*soz*]	640
JEHOIAKIM s. [--hoiakim*syn*]	609
JEHOIKIN s. [--hoiak*aug*]	600
ZEDEKIAH un [Zedeki*lnei*]	598

Kings of Israel.

JEROBOAM son of Nebat [Jerob*noil*]	975
NADAB s. [N*nuf* or N*oulf*]	954
BAASHA [Baa*nut*]	953

	Before Christ.
Elah s. [Elniz]	930
Zimri, Tibni and Omri [Zim-tibnen]	929
Omri alone [Omnel]	925
Ahab s. [Ahábnak]	918
Ahaziah [Ahazikoup]	897
Joram Br. [Jorknau]	896
Jehu [Jehukko]	884
Jehoahaz s. [Jehoahaklau]	856
Jehoash s. [--hoashkin]	839
Jeroboam II. s. [Jerosekdu]	825
Zachariah s [Zacharappt]	773
Shallum son of Jabesh [Shalluppe]	772
Menahem s. of Gadi [Menappe]	772
Pekaiah s. [Pekaipsa]	761
Pekah [Pekapun]	759
Hosea s. of Elah [Hospiz or Hoseptz]	730

The Memorial Lines.

Saul*eznu*, Dav*azul*, Solom*ázal*, Reho-jerob*noil*.

Abi*nup*, Asa*nul*, --hosapha*nbo*, --hor*kein*, Ahazi*kku*, Athli*kko*, --hoaash*koik*, Amaz*kin*, Uz-azari*kby*, Joth*puk* & Aház*pod*, Hez*epep*, Man*sout* & Amón*sot*, Josia*soz*, --hoiakim*syn*, --hoiak*aug*, Zedeki*lnei*.

N*nuf*, Baa*nut*, El*niz*, Zim-tib*nen*, Om*nel*, Ahab*nak*, Ahazi*koup*, Jor*knau*, Jehu*kko*, Jehoaha*klau*, --hoash*kin*, Jerose*kdu*, Zachara*ppt*, Shallu*ppe*, Mena*ppe*, Pekai*psa*, Peka*pun*, Hos*piz*.———

N. B. The break before some of the words denotes that Je is wanting, as --hosapha*nbo* for Jehosapha*nbo*, --hor*kein* for Jehor*kein*, &c.

TABLE XI.
The Prophets.

	Before Christ.
Jonas prophesied against Nineveh [Jon*kze*]	802
Joel prophesied [Jol*eig*]	800

	Before Christ.
AMOS prophesied against King Jeroboam [Am*peip*]	787
HOSEA prophesied against Israel [Hose*peil*]	785
ISAIAH began to prophesy [Isai*psy*]	760
NAHUM prophesied against Nineveh [Nahum-*plei*]	758
MICAH prophesied against Judah and Jerusalem [Mic*put*]	753
JEREMIAH began to prophesy [Jer*sta*]	631
ZEPHANIAH prophesied [Zeph*autz*]	630
HABAKKUK prophesied [Haba*syn*]	609
EZEKIEL in captivity had his first vision [Eze*loul*]	595
OBADIAH prophesied against the Edomites [Obadi*lkoi*]	587
DANIEL had his vision of the four empires [Dan*ull*]	555
HAGGAI prophesied [Hag*lez*]	520
ZECHARIAH prophesied [Zechar*údz*]	520
MALACHI wrote his book, which was the end of vision and prophesy [Malach*inp*]	397

The Memorial Lines.

Jon*kze*, Jol*eig*, Am*peip*, Hose*peil*, Isai*psy*, Nahum*plei*, Mic*put*, Jer*sta*, Zeph*autz*, Haba*syn*, Eze*loul*, Obadi*lkoi*, D'*null*, Hag*lez*, Zechar*údz*, Malach*inp*——

TABLE XII.

Kings of Assyria after the Dissolution of the ancient Assyrian Empire upon the Death of Sardanapalus.

	Before Christ.
ARBACES [Arba*pop*]	747
SALMANESER s. [Salm*pek*]	728
SENNACHERIB s. [Sennach*oibo*]	714
ESARHADDON third s. [Esarhad*opzau*]	706

Kings of Babylon.

BELESIS [Beles*pop*]	747
NADIUS [Nad*pif*]	734

		Before Christ.
CHinzirus, POrus, JUGæus	[Chi-Po-Jug-*pes*]	726
Mardok EMpadus [Em*pea*]		721
ARKianus [Ark*pyn*]		709
BELIBUs [Belibu*pze*]		702
APRONadius [Apron*aunn*]		699
REGIBilus [Regib*sni*]		693
MEsessimordacus [Mes*soud*]		692

After his death followed an *inter-regnum* of eight years, of which Esarhaddon King of Assyria taking the advantage seized Babylon, and adding it to his former empire, thenceforth reigned over both for 13 years.

Kings of Assyria and Babylon jointly, the Royal Seat sometimes at Nineveh, and sometimes at Babylon.

	Before Christ.
Esarhaddon, called in Ptolemy's Canon ASSAR-Addinus [Assar*sky*]	680
SAOSduchinus s [Saós*saup*]	667
CHYNiladanus [Chyn*sop*]	647

Chyniladanus having made himself despicable to his people, Nabopollasar, general of his army, set up for himself; and being a Babylonian by birth, made use of his interest there to seize that part of the Assyrian empire, and reigned king of Babylon 21 years. And in the 14th year of his reign, having made an affinity with Astyages, the eldest son of Cyaxares, by the marriage of his son Nebuchadnezzar with Amyitis the daughter of Astyages, entered into a confederacy with him against the Assyrians, and thereon joining their forces together, they besieged Nineveh; and after having taken the place, and slain Saracus the king, (who was either the successor of Chyniladanus, or he himself under another name,) to gratify the Medes, they utterly destroyed that great and ancient

city, and from that time Babylon became the sole metropolis of the Assyrian empire. *Vide Prideaux Connection*, Part I. Book I.

Kings of Babylon.

		Before Christ.
NABOPOLlasar [Nabopol*sel*]		625
NEBUChadnezzar s. [Neb*sys*]		606
EVILmerodoch s. [Evil*laub*]		561
NERIGlissar Br. in law [Nerig*lun*]		559
*Laborosoarchod s. NABOnadius s. of Evilmerodoch	Nabo*lul*	555
DARius the MEDe, *i.e.* Cyaxares, uncle of Cyrus, to whom Cyrus allowed the title of all his conquests as long as he lived (Darmed*lik*)		538
CYRus the Persian, [Cyr*uts*]		536

Who by taking Babylon ended the BABYLONISH empire, after it had continued 209 years (Reg-Baby'*ézou*)

The Memorial Lines.

Assyria.

Arba*pop* & Salm*pek*, Sennach*oibo*, Esarhod*opzau*.

Babylon.

Beles*pop*, Nad*pif*, Chi-Po-Jug-*pes*, Em*pea*, Ark*pyn*, Belibu*pze*, Aprona*unn*, Regib*sni*, Mes*soud*, + Assar*sky*, Saós*saup*, Chyn*sop*, + Nabopol*sel*, Neb*sys*, Evil*laub*, Nerig*lun*, Nabo*lul*, Darm'd*lik*, Cyr'*ts*, Reg-Babylézou.

TABLE XIII.

Kings of Egypt.†

	Before Christ.
SABAcon the Æthiopian [Sabaco*pdoi*]	727
SEVechus s. [Sev*pan*]	719

* For the reason why *Laborosoarchod* is not named in Ptolemy's Canon, see *Prideaux Connection*, Part I. Book 2.

† Of the ancient Kings of Egypt, from Mizraim or Menes, we have little else but the names, or fabulous accounts.

	Before Christ.
TIRHAKAH, last of the Æthiopians [Tir-hapyl]	705
Confederacy of the XII PRINCES [PRIN-bé-skei]	688
PSAMITICHUS [Psamitspy]	670
NECUS or Necho s. [Necuslas]	616
PSAMMIS s. [Psammaug]	600
APRIES s. [Aprunf]	594
AMASIS [Amaslaun]	569
PSAMMINITUS s. who was conquered by Cambyses, son of Cyrus [Psam-intlel]	525

Kings of Media after the Revolt of the Medes from Sennacherib.

DEJOCES [Dejopzou]	709
PHRAORTES s. [Phraslau]	656
CYAXARES s. [Cyaxasif]	634
ASTYAGES s. [Astuno]	594
*CYAXARES II. [Cy-d-lun]	559

Kings of Persia.

CYRUS [Cyruts]	536
CAMBYSES s. [Cambylen]	529
†[OROPASTES MAGUS] Oro-mag DARIUS, son of HYSTASPES [Darhys-talda]	521
XERXES s. by *Atossa*, daughter of Cyrus [Xerxoku]	485
Artaxerxes LONGIMANUS third s. [Long-fauf]	464

* Cyaxares succeeded Astyages in the civil government, and Cyrus, grandson of Astyages, by his daughter Maudane, in the military government.

† Herodotus calls him *Smerdis*; Ctesias, *Spendadates*; Æschylus, *Mardus*; and in Scripture he is called *Artaxerxes*.

	Before Christ.
XERXES II. s. slain by } [Xerd- Sogdianus base-born B. slain by } sog] Ochus bastard B. commonly called DARIUS NOTHUS [Dar-nothodi]	423
Arsaces eldest s. commonly called Artaxerxes MNEMON [Mnoyf]	404
OCHUS s. [Ochilk]	358
ARSES youngest s. [Arstip]	337
Darius CODOMANNUS, descended from Darius Nothus [Codomattu]	335

The Memorial Lines.

Egypt.

Sabaco*pdoi*, Sev*pan*, Tirha*pyl*, Prin-*bé-skei*, Psamit*spy*, Necus*sas*, Psamm*aug*, Apr*unf*, Amas*láun*, Psamin*itlel*.

Media.

Dejop*zou*, Phras*lau*, Cyaxa*sif*, As*tuno*, Cy-*d*-*lun*.

Persia.

Camby*len*, [Oro-mag, Dar-hysta*lda*,] Xerx*oku*, Long-*fauf*,
[Xer*d*-sog, Dar-notho*di*,] Mn*oyf*, Ars*tip*, Och*ilk*, Codoma*ttu*.

TABLE XIV.

The different Names of the same Persons in Scripture and in profane Authors.

* ARBACES	‖ TIGLATH PILESER, 2 *Kings* xv. 29.
† BELESIS } NABONASSAR }	BALADAN, *Isa.* xxxix. 1.
Mardok EMPADUS	Merodach BALADAN, *Isa. ibid.*
ASSar-Addinus	ESARHADDON, 2 *Kings* xix. 37. ASNAPPER, *Ezra* iv. 10.
‡ NABONADIUS	BELSHAZZAR, *Daniel* v. 1 and 29.

* Called also by Castor, *Ninus*, junior.

‖ Also *Thilgamus* and *Thilgath Pilneser*.

† Called also by Nicolas Damascenus, *Nanibrus*.

‡ Called also by Berosus, *Nabonnedus*; by Megasthenes, *Nabonnidochus*; by Herodotus, *Labynetus*; and by Josephus, *Naboandelus*.

CYAXARES	DARIUS the Mede, *Daniel* iii. 31.
SABACON	SO, 2 *Kings*, xvii. 4.
NECUS	Pharaoh NECHO, 2 *Chr.* xxxv. 20.
TARACHUS	TIRHAKAH, *Isa.* xxxvii. 9.
APRIES	Pharaoh HOPHRAH, *Jer.* xliv. 30.
DEJOCES	ARPHAXAD, *Judith* i. 1.
* ARTAXERXES LONGIMANUS	AHASUERUS, *Esther* ii. 16.
SALMANESER	ENEMESSAR, *Tobit* i. 2. SHALMON, *Hosea* x. 14.
SENNACHERIB	SARGON, *Isaiah* xx. 1.
ASTYAGES	AHASUERUS, *Daniel* ix. 1.
SEVECHUS	SETHON, *Herodotus* 2.
SAOSDUCHINUS	† NABUCHODONOSOR, *Judith* i. 1.
CAMBYSES	AHASUERUS, *Ezra* iv. 6.
SMERDIS	ARTAXERXES, *Ezra* iv. 7.

The Memorial Lines.

Arb-tig, Bel-bala-nab, Nabonad-belsh, Dar-m-cya, Sab-so,
Dej-arphax, Apr-hoph, Empád-balad, Ass-esar-asnap,
Sen-sarg, Salm-ene-shalm, Sev-seth, Saós-nabu, Smerd-art,
Tirh-tara, Nech-necus, Art-long—Asty-ahas, Cam-ahasque.

TABLE XV.

Kings of Egypt and Syria, after the Death of Alexander the Great.

Kings of Egypt.	Before Christ.
Ptolemæus LAGUS or Soter [Lag*tyo*]	304
Ptol. PHILADELPHUS s. [Pha*dko* or Phil*deif*]	284
Ptol. EUERGETES s. [Eu*dos*]	246
PTOL. PHILOPATOR s. [Ptol-ph*eeb*]	221
PTOL. EPIPHANES s. [Ptol-epiph*ezo*]	204

* Archbishop Usher thinks that Darius Hystaspes was the K. Ahasuerus that married Esther; Scaliger, that Xerxes was.

† *Nabuchodonosor* was a name among the Babylonians, commonly given to their kings, as that of *Pharaoh* was among the Egyptians.

	Before Christ.
Ptol. PHILOMETOR s. [Phombeiz]	180
Ptol. PHYSCON B. [Physcobfu]	145
Ptol. LATHYRUS s. [Lathyradz]	120
ALEXANDER n. [Alexanky]	80
Ptol. AULETES bastard s. of Lathyrus [Aulaul]	65
CLEOPATRA D. [Cleopatla]	51

Kings of Syria.

SELEUCUS NICANOR [Sél-nitad]	312
ANTIOCHUS SOTER s. [Antí-sodoin]	279
A-ntiochus THEOS s. [A-thedauz]	260
SELEUCUS CALLINICUS s. [Sel-caldfu]	245
Seleucus CERAUNUS s. [Ceraunecl]	225
ANTIOCHUS MAGNUS B. [Ant-magdee]	222
SELEUCUS PHILOPATOR s. [Sel-phaks]	186
ANTIOCHUS E-PIPHANES B. [An-Eboil]	175
ANTIOCHUS EUPATOR s. [Ant-eúpaso]	164
DEMETRIUS S-OTER s. of Seleucus Philopator [Dem-Sâse]	162
ALEXANDER BALA [Al-balbuz]	150
DEMETRIUS NICATOR son of Demetrius Soter [D-nicafu]	145
Antiochus SIDETES B. [Sidétboz]	140
Demetrius NICATOR [D-nicaty]	130
ZEBINA [Zebbel]	125
Antiochus GRYPUS son of Demetrius Nicator [Grypadi]	123
SELEUCUS s. [Seleucous]	96
PHILIP B. [Philipne]	92
TIGRANES King of Armenia [Tigráneit]	83

The Memorial Lines.

Egypt.

Lagtyo, Phadko, Eudos, Ptol-pheeb, Ptol-epiphezo, Phombeiz,
Physcobfu, Lathyradz, Alexanky, Aulaul, Cleopatla.

Syria.

Sél-nitad, Antí-sodoin, A-thedauz, Sel-caldfu, Ceranneel,
Ant-magdee, Sel-phaks, An-Eboil, Ant-cúpaso, Dem-Sâse,
Al-balbuz, D-nicafu, Sidéiboz, D-nicaty, Zebbel,
Grypadi, Seleucous, Philipne, Tigráneit,———

TABLE XVI.

Jewish High Priests, &c. after the Return from the Captivity.

	Before Christ.
JESHUA son of Jozadack [Jeshúa*lis*]	536
JOIAKim s. [Joiak*okt*]	483
ELiasHib s. [Elsh*olt*]	453
JOIADah s. [Joid*oat*]	413
*JOHANAN s. [Johanán*ipt*]	373
JADdua [Jadu*tob*]	341
ONias PRIMUS s. [On-prími*da*]	321
SIMon the Just s. [Sim-j*ig*]	300
ELEAzar br. [Eleá*dna*]	291
MANAsseh son of Jaddua, and uncle of Simon the Just [Manáss*eps*]	276
†ONias II. son of Simon the Just [On-s*duz*]	250
SIMon II. (SECundus) s. [Sim-sec*dap*]	217
ONias tertius s. [On-t*boul*]	195
JASon br. [Jas*boil*]	175
MENELaus br. [Menel*ápe*]	172

On the death of Menelaus, Alcimus was made high priest by Antiochus Eupator. After him, Jonathan, brother of Judas, was made high priest by Alexander Bala.

Judas MACCABæus (s. of Mattathias, descended from Asmonæus) captain of the Jews [Ju-máccab*ass*]	166
JONAthan br. [Jóna*bauz*]	160
SImon MAccabæus [Si-mac*bot*]	143
HYRcanus s. [Hyrc*atu*]	135
K. ARistobulus s. [K-Ar*bys*]	106
Alexander JANNæus br. [Jann*azu*]	105
ALEXANDRa w. [Alxándr*oik*]	78

* Called also Jonathan. *Nehemiah,* chap. 10 v. 11.

† He being an infant at his father's death, Eleazar was made high priest.

	Before Christ.
(ARISTOBULUS SECUNDUS younger s. K. [Aristób-*secaun*])	69
HYRCANUS SECUNDUS elder br. H. P. [Hyrca-*secundsi*]	63
ANTIGONUS younger son of Aristobulus K. [Antigo*noz*]	40
HEROD son of Antipas K. [Herod*ík*]	38
ARCHELAUS K. [Archel*t*]	3

The Memorial Lines.

Jeshúa*lis*, Joiak*okt*, Elsh*olt*, Joiad*oat*, Johanán*ipt*, Jadu*tob*, On-prím*ida*, Sim-j*ig*, Elcá*dna*, Manás*seps*, On-*sduz*, Sim-sec*dup*, On-*tboul*, Jas*boil*, Menel*ápe*, Ju-máccab*ass*, Jóna*bauz*, Si-mac*bot*, Hyrc*atu*, K-Ar*bys*, Jann*azu*, Alxánd*roik*, Aristób-sec*aun*, Hyrca-secund*si*, Antigon*oz*, Herod*ík*, Archel*t*———

TABLE XVII.

Founders, &c. of ancient Monarchies.

	Before Christ.
NINUS founder of the Assyrian monarchy [Nin*ezlou*]	2059
SEMiramis wife of Ninus [Sem*anaul*]	1965
SARDANapalus in whom ended the Assyrian monarchy [Sardan*pop* or *paup*]	747 or 767
ÆGIALEUS, King of Sicyon [Ægial*ézkou*]	2089
INachus, first King of Argos [In*akus*]	1856
The OGYGian flood, under Ogyges King of Attica [Ogyg*apaus*]	1766
PRometheus, son of Japetus, brother of Atlas [Pr*askoi*]	1687
CEcrops first King of Athens [Cec*blus*]	1556
SISYPHUS first King of Corinth [Sisyph*álzo*]	1504
TEUCer first King of Troy [Teuc*buzd*]	1502
CADMUS first King of Thebes [Cadm*áfno*]	1494
SATurn expelled Crete by his son Jupiter, settled in Italy [Sat*útty*]	1330

	Before Christ.
PERSEUS first King of Mycene [Pérs*atat*]	1313
HERcules, son of Jupiter by Alcmena [Her*bdoif*]	1274
The ARGOnautic expedition [Argó*bdaup*]	1267
OEDIpus King of Thebes [Oédi*bess*]	1266
THEseus son of Ægeus [Thes*bdif*]	1234
*CODRus the last King of Athens [Codr*ázpa*]	1071
CARANus first King of Macedon [Caran*kaf*]	814
CANDAUles King of Lydia [Candau*ptu*]	735
CRŒSus King of Lydia [Crœs*úse*]	562
CYRus, founder of the Persian empire [Cyr*uts*	536
ALEXander, founder of the Grecian empire [Alex*ita*]	331
JULius Cæsar, founder of the Roman empire [Jul*os*]	46

The Memorial Lines.

Nin*ezlou*, Sem*anaul*, Sardan*pop*, Ægial*ézkou*, In*akus*, Ogyg*apaus*, Pr*askoi*, Cec*blus*, Sisyph*álzo*, Teuc*buzd*, Cadm*áfno*, Sat*átty*, Pérs*atat*, Her*bdoif*, Argó*bdaup*, Oédi*bess*, Thes*bdif*, Codr*ázpa*, Caran*kaf*, Candau*ptu*, Crœs*úse*, Cyr*uts*, Alex*ita*, Jul*os*.

TABLE XVIII.

Grecian History.

	Before Christ.
The THEBan war [Theb*adel*]	1225
First MESSenian war [Mess*pot*]	743
Second MESsenian war [Mess*ku*]	685
Battle of MARATHON [Marath*ónz*]	490

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* After the death of Codrus the Athenians had perpetual Archons, the first of which was MEDON [Med*azoix*]	1070
Then decennial Archons, the first of which was CHAROPS [Charop*puo*]	754
Then annual Archons, the first of which was CREON [Cre*seiz*]	680

——— Med*azoix*, Charop*puo*, Cre*seiz*.

	Before Christ.
Battle of SALAMIS [Salam*bky*]	480
Battle of EURYMEDON [Eurymed*opz*]	470
The PELOponnesian war [Pelo*fib*]	431
Battle of LEUCTRA [Leuctra*tpi*]	373
Battle of MANTinea [Mant*isi*]	363
PHOCæan or sacred war [Phoc*ilp*]	357
Battle of the River GRANICUS [Grani*tif*]	334
Battle at the ISSus [Iss*tit*]	333
Battle of ARBela [Arb*tib*]	331
ALEXander the Great succeeds Philip [Alex*tis*]	336
Philip ARidæus [Ari*tet*]	323
Alexander ÆGus [Æg*tas*]	316

The Memorial Lines.

Theb*adcl* & Mess*pot*, Mess*ku*, Marath*ónz*, Salam*bky*, Eurymed*opz*, Pelo*fib*, Leuctr*atpi*, Mant*isi*, Phoc*ilp*, Grani*tif*, Iss*tit*, Arb*tib*, Alex*tis*, Ari*tet*, Æg*tas*.

N. B. After the death of Alexander there arose great confusion among his Generals about the succession, each seizing what he could for himself, till by leaguing and making war against each other, they were, after some years, all destroyed except four. These were Cassander, Lysimachus, Ptolemy, and Seleucus, who divided the whole empire.

Cassander had MACedon and GREece.
LYsimachus had THRACE and those parts of Asia situated upon the HEllespont and the Bosphorus.
PTOLemy had Æ-gypt, LIBya, A-rabia, PALestine, and Cœlo-SYria.
SELEUCUS all the rest of Asia, &c.

The Memorial Line.

Cáss-magre, Lys-thrachebos, Ptol-ælibapalsy, Seleuc-as.

TABLE XIX.

Grecian Lawgivers, Philosophers, and Poets.

	Before Christ
Lycurgus born [Lyc*nes*]	926
Draco [Drá*sdo*]	624
Solon died [So*lun*]	559
Pythagoras died aged 80. [Pythág*lys*]	506
Euclid the geomet. flourished [Eucl*ozau*]	406
Socrates died [Socr*inn*]	399
Xenophon died [Xenóph*ilou*]	359
Plato died [Pla*tok*]	348
Diogenes died aged 90. [Dio*tet*]	323
Aristotle died aged 63. [Aris*téd*]	322
Epicurus died aged 72. [Epicu*dpa*]	271
Archimedes slain [Archi*dad*]	212
Linus and Orpheus [Lin*adka*]	1281
Homer died [Hom*nad*]	912
Archilochus [Archilochu*skau*]	686
Sappho [Sapph*syd*]	602
Anacreon [Anác*loud*]	592
Æschylus born [Æsch*lel*]	525
Pindar died aged 80. [Pind*fóz*]	440
Sophocles born [Sophocl*ozoi*]	407
Theocritus flourished [Theócr*eku*]	285
Lycophron flourished [Lycophr*epz*]	270

The Memorial Lines.

Lyc*nes*, Drá*sdo*, So*lun*, Pythág*lys*, Eucl*ozau*, Socr*inn*, Xenóph*ilou*, Pla*tok*, Dio*tet*, Aris*téd*, Epicu*dpa*, Archi*dad*, Lin*ádka*, Hom*nad* & Archilochu*skau*, Sapph*syd* & Anác*loud*, Æsch*lel*, Pind*fôz*, Sophocl*ozoi*, Theócr*eku*, Lycophr*epz*. ——

TABLE XX.

Roman History.

The foundation of Rome was laid in the 3961 year of the Julian period [Romp*insa*] *anno mundi*

3251 [Rommi*dub*] in the year before Christ 753, or as some 752, [Rom*put*] upon the 22 day of April [Apri*de*] in the fourth year of the sixth Olympiad [*fols*]

The Regal State under VII. kings lasted 245 years [Stat-reg*dol*]

	Before Christ.
Romulus [Rom*put*]	753
Numa Pompilius [Num*paf*]	714
Tullus Hostilius [Hostil*spy*]	670
Ancus Martius [Anc*sip*]	637
Tarquinius Priscus [Prisc*saf*]	614
Servius Tullius [Serv*aps*]	576
Tarquinius Superbus [Super*lid*]	532

The Memorial Lines.

——————Stat-reg*dol*,
Romp*insa*, Romm*idub*, Rom*put fols* Apri*de*. Num*paf*,
Hostil*spy*, Anc*sip*, Prisc*saf*, Serv*aps*que Super*lid*.

TABLE XXI.

The Consular State, from Brutus and Collatinus the first consuls, to the period when Julius Cæsar was made perpetual dictator, lasted 464 years [Stat-consula*roso*]

	Before Christ.
Consuls first made [Consul*zoi*]	507
First Dictator [Dic*onoi*]	497
Creation of the Tribunes [Trib*foud*]	492
Creation of the Decemviri [Decem*poly*]	450
Creation of the Military T-ribunes [Mil-t*foz*]	440
Incendium Urbis, or the burning of the city by the Gauls [Incend*ikk*]	388
War with the Samnites [Samn*ife*]	342
War with Pyrrhus King of Epirus [Pyr*doin*]	279
First Punic war } Bellum [Bel-pun*esi-das-bok*]	263
Second Punic war } Bellum [Bel-pun*esi-das-bok*]	216
Third Punic war } Bellum [Bel-pun*esi-das-bok*]	148

	Before Christ.
The end of the sedition of the GRACCHI [Gracchade]	122
The JUGurthine war [Jugubzou]	109
War with the CIMbri [Cimbat]	113
The social or ITALian war [Italein]	89
War begun with MITHRIDATES [Mithridatkou]	89
DICTatorship of SyLla [Syl-dicteiz]	80
CATALine's conspiracy [Catalaud]	62
First TRiumvirate [Trun]	59
Battle of PHARsalia [Pharsop]	47
BATtle of PHILippi [Bat-philob]	41
Battle of ACtium [Acta]	31

The Memorial Lines.

——— ——— Stat-consularoso,
Consulzoi, Diconoi, Tribfoud, Decemvoly, Mil-tfoz,
Incendikk, Samnife, Pyrdoin, Bel-punesi-das-bok,
Gracchade, Jugubzou, Cimbat, Italein, Mithridatkou,
Syl-dicteiz, Catalaud, Trun, Pharsop, Bat-philob, Acta.

TABLE XXII.

The Twelve Cæsars.

		Before Christ.
I.	JULIUS Cæsar [Julios]	46
II.	AUGUSTUS great n. [Augustel]	25
		Anno Domini.
III.	TIBERIUS step-s. [Tiberbu]	15
IV.	CALIGULA great n. [Caligulik]	38
V.	CLAUdius un. [Claod]	42
VI.	NERO step-s. [Nerul]	55
VII. VIII.	GALBA, OTHO [Galb-othosou]	69
IX. X.	VITellius, VESPasian [Vit-vespoiz]	70
XI.	TITUS s. [Titpou]	79
XII.	DOMITian br. [Domitka]	81

The Memorial Lines.

Julios, Augustel + Tiberbu, Caligulik, Claod,
Nerul, Galb-othosou, Vit-vespoiz, Titpou, Domitka.

N. B. The reign of Julius Cæsar is here supposed to commence from the death of Pompey, which made way for his absolute power soon after; the reign of Augustus from the full establishment of his authority by the senate and people. Some reckon it as commencing from the death of Anthony; and others, yet sooner, from the death of Julius Cæsar.

TABLE XXIII.

The Roman Emperors from Nerva to Jovian.

		Anno Domini.
XIII.	Nerva [Ner*vcus*]	96
XIV.	Trajan [Tra*nk*]	98
XV.	Adrian [Adri*bap*]	117
XVI.	Antoninus Pius [Ant*bip*]	137
XVII.	Antoninus Philosophus s. [Ant-phi*bsa*]	161
XVIII.	Commodus s. [Commód*beiz*]	180
XIX.	Pertinax } [Pert-juli-*sant*]	193
XX.	Didius Julianus } [Pert-juli-*sant*]	193
XXI.	Septimius S-everus } [Pert-juli-*sant*]	193
XXII.	Caracalla & Geta ss. [Car-G*dab*]	211
XXIII.	Macrinus & Diadumenus } [Mac-Dhe-*dap-k*]	217
XXIV.	Heliogabalus } [Mac-Dhe-*dap-k*]	218
XXV.	Alexander S-everus [Al-s*édd*]	222
XXVI.	M-aximinus and M-aximus [Mm*etu*]	235
XXVII.	Pupienus and B-albinus [Pu-b*dik*]	238
XXVIII.	Gordian [Gor*din*]	239
XXIX.	Philip [Ph*eff*]	244
XXX.	Decius [Deci*don*]	249
XXXI.	*Gallus & VOlusian [Gal-vó*dla*]	251
XXXII.	Valerian [Valér*eli*]	253

* Gallus. Between Gallus and Valerian, some writers rank Æmilian among the number of emperors; but because he was never established in the empire, nor his title generally acknowledged, others more justly place him only among the usurpers.

		Anno Domini.
XXXIII.	Gallienus [Galn*dauz*]	260
XXXIV	*Flavius Claudius [Cl*esk*]	268
XXXV.	Aurelian [Aur*epz*]	270
XXXVI.	Tacitus [Taci*doil*]	275
XXXVII.	Probus [Prob*dois*]	276
XXXVIII.	Carus and his sons Carinus and Numerian [Car-Cnu*dke*]	282
XXXIX.	Dioclesian and Maximian [Di-max*deif*]	284
XL.	Constantius Chlorus and Galerius [Chlo-gal*tyt*]	303
XLI.	†Constantine the Great [Cons*tys*]	306
XLII.	Filii Constantini, the three sons of Constantine, viz. Constantine, Constantius, and Constans [Fil-cons*tip*]	337
XLIII.	Julian, nephew to Constantine the Great [Jul*isa*]	361
XLIV.	Jovian [Jov*tauf*]	364

The Memorial Lines.

Nervous, Tra*nk*, Adri*bap*, Ant-*bip*, Ant-phi*bsa*, Commód*beiz*,
Pert-juli-*sant*, Car-G*dab*, Mac-Dhe*dap-k*, Al-*sedd*, Mm*etu*, Pu-b*dik*,
Gor*din*, Ph*eff*, Deci*don*, Gal-vó*dia*, Valére*li*, Galn*dauz*,
Cl*esk*, Aur*epz*, Taci*doil*, Prob*dois*, Car-Cnu*dke*, Di-max*deif*,
Chlo-gal*tyt*, Cons*tys*, Fil cons*tip*, Jul*isa*, Jov*tauf*.

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* Flavius Claudius. Upon the death of Claudius, Aurelian was unanimously chosen by the army: and at the same time Quintillus, brother to Claudius, was proclaimed Emperor in Italy, and his election allowed by the senate; but finding himself unable to support his cause against Aurelian, he dispatched himself, by causing his veins to be opened, after a short reign only of 17 days, before he was rightly settled in his empire; for which reason he is here omitted.

† Constantine was saluted Emperor of the West upon the death of his father Constantius Chlorus; but was not sole monarch till the defeat and death of Licinius, An. Dom. 323. [Li-cin*tet*] He removed the imperial seat to Byzantium in the year 330. [Byzan*us*.]

TABLE XXIV.

The Division of the Empire.

EASTERN.	A. D.
VALENS [Val*iso*]	364
THEODOSIUS MAGNUS [The-mag*toin*]	379
ARCADIUS [Arc*toul*]	395
THEODOSIUS JUNIOR Theo-jú*nozei*	408
MARCIAN [Marc*olz*]	450
LEO [Lé*oloi*]	457
ZENO [Zeno*fpo*]	474
ANASTASIUS [Ana-sta*fna*]	491
JUSTIN [Just*lak*]	518
JUSTINIAN [Justi-ni*lep*]	527
* * * * *	
PHOCAS [Phoc*auze*]	602
* * * * *	
LEO ISAURICUS [Le-Is*pap*]	717
* * * * *	
IRENE [Irén*poup*]	797
BASILIUS MACEDO [Bas-macc*kaup*]	867
* * * * *	
LEO PHILOSOPHUS [Leo-ph*eiks*]	886
* * * * *	
ALEXIUS COMNENUS [Al-c*azka*]	1081
* * * * *	
MICHAEL PALÆOLOGUS [Micha-pal*adsa*]	1261
* * * * *	

WESTERN.	A. D.
VALENTINIAN [Valtini*tauf*]	364
GRATIAN [Gra*toil*]	375
VALENTINIAN the Second [Val-*sikt*]	383
HONORIUS [Hono*tni*]	393
VALENTINIAN the third [Va-*tódo*]	424
MAXIMUS AVITUS [Max-avi*ful*]	455
MAJORIAN [Maj*olp*]	457
* * * * *	
AUGUSTULUS, in whom ended the western empire [August*foil*]	475
The restoration of the western empire by CHARLEMAGNE [Charlm*eig*]	800
* * * * *	
OTHO MAGNUS [Oth-mag*nis*]	936
* * * * *	
HENRICUS QUARTUS Hen-qua*rbzup*]	1057
* * * * *	
Frederick ÆNOBARBUS [Æn*bale*]	1152
* * * * *	
FREDERICUS SECUNDUS [Fre*bdap*]	1217
* * * * *	

Constantinople taken in the reign of Constantine Palæologus the last Emperor of the East [Constantino*bóli*] see page 11. 1453

The Memorial Lines.

Eastern Emperors.

Val*iso*, The-mag*toin*, Arc*toul*, Theo-júno*zei*, Marco*lz*,
Léo*loi*, Zeno*fpo*, Anasta*fna* ———
Jus*tlak*, Justini*lep*, Phoc*auze*, Le-Is*pap*, Iré*npoup*,
Bas-mace*kaup*, Leo-ph*eiks*, Al-*cazka*, Micha-pa*ludsa*.

Western Emperors.

Valtini*tauf*, Gra*toil*, Val-*sikt*, Hono*tni*, Va-*tódo*,
Max-avi*ful*, Maj*olp* ——— August*foil* ——
Charlm*eig*, Oth-mag*nis*, Hen-quar*bzup*, Æn*bale*,
Fre*bdap*.

It was not agreeable with the author's design to give a *complete* table of all the Eastern and Western Emperors. The succession was carried down to the sixth century; and after that, only a few are added of such as were most remarkable: to which it may not be improper to subjoin those persons who were famous for wasting and ravaging the Roman empire.

	Anno Domini.
Alaric, king of the Goths, besieges, takes, and plunders Rome [Al*robz*]	410
Attila, king of the Huns, called the scourge of God, ravages Italy [Atti*fla*]	451
Genseric the Vandal sacks Rome [Gens*ful*]	455
Odoacer, king of the Heruli, makes himself master of Italy, and assumes the name of king [Od*ops*]	476
Theodoric, king of the Ostrogoths, drives Odoacer from Rome, and kills him with his own sword [Theód*ont*]	493
Totilas the Ostrogoth takes Rome [Tot*lop*]	547

Al*robz*, Atti*fla*, Gens*ful*, Od*ops*, Theód*oni*, Tot*lop*.

TABLE XXV.

Eastern General Councils. *See page 5.*

Place.	Pope.	Emperor.	Heretics.	After Christ. Year.
I. Nice	Silvester	Constantine	Arius	325
II. COnstantinople	Damasus	Theodosius Magnus	Macedonians	381
III. Ephesus	Celestine	Theod. jun.	Nestorians	431
IV. Chalcedon	Leo	Marcian	Eutyches & Dioscorus.	451
V. COnstantinople	Vigilius	Justinian	Origenists	553
VI. COnstantinople	Agatho	COnstantine - POgonatus	Monothelites	680

The Memorial Lines.

Nicsilcon-ári*tel*, Codathé-ma*teib*, Ephcethe-né*sfib*, Chállemar-eudí*ola*, Covijúst-O*lut*, C-ágcopo-mon*seiz*.

Western General Councils.

I. LATeran	1122	I. Lyons	1255
II. LATeran	1139	II. Lyons [Lyo*dúl-doif*]	1274
III. LATeran	1175		
IV. LATeran	1215	Vienna [Ví*taa*]	1311
V. LATeran [Lat*béd-in-oil-dal-lap*]	1517	Constance [Const*faf*]	1414
		Basil [Bas*fia*]	1431
		Florence [Florén*fin*]	1439
		Trent [Tren*alol*]	1545

The Memorial Lines.

Lat*béd-in-oil-dal-lap*, Lyo*dúl-doif*, Ví*taa*, Const*faf*, Bas*fia*, Florén*fin*, Tren*alol* ———

N. B. A thousand is to be added. Note also, that the second and third Lateran being in the same century with the first, *b* is left out; as *bed-in-oil*, instead of *bed-bin-boil;* the syllables in order answering to the order of the councils.

Councils not Œcumenial.

Ancyra } [Anc- } Neocæsarea } neo*tal*] }	315	Antioch [An*tob*]	341
		Sardica [Sard*ifp*]	347
Gangra [Gang*toz*]	340	Laodicea [Laó*isa*]	361

Anc-neo*tal*, Gang*toz*, An*tob*, Laód*isa*, Sard*ifp*.

TABLE XXVI.

Fathers, Heretics, &c.

	Flourished A. D.
Hermas Pastor [Herm-pas*taul*]	65
Clemens Romanus [Clérom*aul*]	65.
Ignatius [Igna*bza*]	101
Polycarp [Polyca*ázci*]	108
Justin Martyr [Jus-mar*boz*]	140
Irenæus [Ir*asp*]	167
Theophilus Antiochenus [Th*ask*]	168
Athenagoras [Athn*app*]	177
Clemens Alexandrinus [Cl-éx*ane*]	192
Tertullian [Ter*tand*]	192
Minutius Felix [Min-f*dez*]	220
Origen [Or*etz*]	230
Gregory Thaumaturgus [Thaum*clf*]	254
Cyprian martyred [Cypr*elk*]	258
Lactantius [Lactan*tyt*]	303
Arnobius [Arn*tyt*]	303
Eusebius Pamphilius [Eu-pam*tal*]	315
Athanasius [Atha*tes*]	326
Cyril of Jerusalem [Cyr-j*ilz*]	350
Hilary [Hilar*ilf*]	354
Epiphanius [Epiphán*isk*]	368
Ephraim Syrus [Eph-syr*toiz*]	370
Basil Magnus [Bas-mag*toiz*]	370
Gregory Nazianzen [Greg-naz*toiz*]	370
Macarius [Macar*ipt*]	373
Ambrose [Ambro*tpo*]	374
Jerome [Jerom*toik*]	378
Evagrius [Evag*teiz*]	380

	Flourished An. Dom.
Rufinus [Ruf*inz*]	390
Austin or Augustin [Aust*in§*]	396
Chrysostom [Chryso*touk*]	398
Cyril of Alexandria [Cyr-alex*ôbe*]	412
Philo Judæus [Phil-j*nfy*]	40
Josephus [Josépha*up*]	67
Aquila [Aqui*bek*]	128
Theodotion [Theodót*apu*]	175
Symmachus [Symché*zb*]	201

Heretics.

Cerinthus [Cerinth*eiz*]	80
Papias [Pap*aaz*]	110
Basilides [Basili*bbe*]	112
Valentinian [Valent*ady*]	120
Marcian [Marc*boz*]	140
Hermogenes [Hermog*apy*]	170
Montanus [Mont*âpe*]	172
Novatian [Nov*dua*]	251
Paulus Samosatanus [Pau-sam*dau*]	260
Manes [Man*epp*]	277
Arius [Ari*tel*] see page 6.	325
Donatus [Dóna*ten*]	329
Eunomius [Eunomi*taut*]	360
Priscillian [Prisci*tpa*]	371
Pelagius [Pelagi*ózu*]	405

Writers against Christianity.

Celsus [Cels*buz*]	150
Hierocles [Hierocl*éze*]	202
Porphyry [Porph*epy*]	270
Zosimus [Zos*fel*]	425

The Memorial Lines.

Herm-past*aul*, Clé-rom*aul*, Ign*abza*, Polycar*dzei*,
Jus-mar*boz*, Ir*asp*, Th*ask*, Athn*app*, Cl-éx*ane*, Tert*and*,
Min-f*dez*, Or*etz*, Thaum*elf*, Cypr*elk*, Lactan*tyt*&Arn*tyt*,

Eu-pam*tal*, Atha*tes*, Cyr-j*ilz*, Hilar*ilf*, Epiphá*oisk*, Eph-syr-Bas-Grego*toiz*, Macar*ipt*, Ambro*tpo*, Jerom-*toik*,
Evag*teiz*, Ruf*inz*, Aust*íns*, Chryso*touk*, Cyr-alex*ôbe*.
Phil-ju*fy*, Josépha*up*, Aqui*bek*, Theodó*tapu*, Symch*ezb*.
Cerinth*eiz*, Pap*aaz*, Basil*ibbe*, Valen*ady*, Marc*boz*, Hermog*apy*, Mont*ápe*, Pau-sám*dauz*, Nov*dua*, Man*epp*, Dóna*ten*, Eunomi*tauz*, Prisci*tpu*, Pelagi*ózu*.
Cels*buz*, Hierocl*éze* ——— Porph*epy*, Zos*fel*.

TABLE XXVII.

Popes, Authors, Famous Men, &c.

M

Anno Domini.		Before Christ.	
LIBERius [Liber*tle*]	352	HIPPARchus [Hip-par*bse*]	162
Zosimus [Zos*oap*]	417		
LEO mag [Leo-m*off*]	444		
GELASIUS [Gelás*one*]	492	**Anno Domini.**	
JOAN [Joan*kof*]	844	ONKELOS [Onkel*koi*]	87
URBIN VI. } Anti- CLEMENT VII. } Popes. [Urb-*s*-Cle-*p*-*atoip*]	1377	TACITUS [Tacit*ázei*]	108
Leo X. [L-*az-blat*]	1513	AulusGELLius [Gel*aad*]	112
GREGORY XIII. [Greg*obi-búpe*]	1572	PAUSANIAS [Paus*ato*]	134
Sextus QUINtus [S-quin-*aleil*]	1585	GALEN [Gal*bot*]	143
CLEMENT VIII. [Cle-*k-aloud*]	1592	Diogenes LAERTius [Laert*bop*]	147
Before Christ.		PRUDENTIUS [Prud*inp*]	397
SANCHONIATHON [Sanch*about*]	1193	EUTROPIUS [Eutrop*fek*]	428
HERODOTUS [Herodo*fus*]	456	MERLIN [Merl*opoi*]	477
MANETHO [Maneth*eky*]	280	HESYCHIUS [Hesch*foun*]	499
BEROSUS [Berod*sou*]	269	PROCOPIUS [Proco*lip*]	537
		AGATHIAS [Agath*aup*]	567
		GILDAS [Gild*usp*]	567
		BEDE [Bed*saus*]	666

	Anno Domini.
ZONARAS [Zona-rabbak]	1118
GRATIAN [Grat*abla*]	1151
BALSAMON [Bal-*aboub*]	1191
Petrus LOMBARDUS [Lom*balk*]	1158
THOMAS AQUINAS [Thom-aqu*adsi*]	1263
PETRARCH [Petr*attu*]	1335
PTOL. GEOGRAPH [Ptol-gëogr*afz*]	140
COPERNICUS [Co-pérnic*afoit*]	1473

	Anno Domini.
TYCHO Brahe [Tych*blos*]	1546
GALILÆO [Gali-l*asfe*]	1642
ERASMUS obit [Erasm*uts*]	1536
ROBERT STEPHENS ob. [Ro-st*lun*]	1559
TURNEBUS [Turn-*laul*]	1565
HENRY STEPHENS ob. [Hen-ste*lsi*]	1563
THUANUS Histori-cus [Thuan*sap*]	1617

The Memorial Lines.

Liber*tle*, Zos*oap*, Leo-m*off*, Gelás*one*, Joan*kof*,
Urb-*s*-Cle-*p*-*atoip*, L-*az*-*blat*, S-quin-*aleil*, Cle-*k*-*aloud*, Grego*bi*-*bûpe*.
Sanch*about*, Herodo*fus*, Maneth*eky*, Hippar*bse*, Be-ro*dsou*.

Onkel*koi*, Gel*aad*, Tacitá*zei*, Paus*ato*, Gal*bot*,
Laert*bop*, Prud*inp*, Eutrop*fek*, Merl*opoi*, Hesch*foun*,
Proco*lip*, Agath*laup*, Gild*usp*, Bed*saus*, Zonora*bbak*,
Grat*abla*, Bal*aboub*, Lom*balk*, Thom-aqu*adsi*, Petr*attu*,
Ptol-gëogr*afz*, Tych*blos*, Copérnic*afoit*, Galil*asfe*,
Erasm*uts*, Ro-st*lun*, Turn*laul*, Hen-ste*lsi*, Thuan*sap*.

The Time when any Author or famous Man flourished may also be known in general, as follows.

VITRUVIUS *in the time of*	JULIUS Cæsar
Dionysius HALICARNAS-sensis *under*	AUGUSTUS
STRABO	TIBERIUS
SILIUS ITALICUS	NERO
Quintus CURTIUS	VESPASIAN
PLUTARCH APPIAN	TRAJAN

Arrian *flourished under*	Antoninus Pius
Ulpian	Severus
Prosper }	
Orosius }	Theodosius junior
Zosimus }	
Jornandes	Justinian

The Memorial Lines.

Vitruv-jul, Halic-aug, Strab-tib, Sil-Itál-nero, Curt-vesp,
Plut-Appi-tra, Arri-antp, Ulp-sev, Pros-OroZ-theo, Jorn-just.

TABLE XXVIII.

The Founders of the States of Europe.

The first		Anno Domini.
Bishop of Rome	St. Peter [Pe*ft*]	43
Pope	Hyginus [Hyg*alo*]	154
Imperii Orientis	Galerius [Ori-gal*tyt*]	303
Emperor of Constantinople	Arcadius [Const-arc*toul*]	395
Turkish Emperor	Ottoman [Turk-ottom*adnoi*]	1295
Emperor of the Romans	Julius Cæsar before Chr. [Rom-ju*fs*]	46
King of Italy in the Empire	Odoacer [Ital-od*ops*]	476
Emperor of Germany	Charlemagne [Ger-charlm*eig*]	800
King of France	Pharamond [Fran-pharam*bdy*]	420
King of Spain	Athaulphus [Sp-ath*faz*]	410
King of Portugal	Alphonsus [Port-al*abin*]	1139
King of Scotland	Fergus before Christ [Scot-ferg*tid*]	332
King of England	Egbert [Eng*kek*]	828
King of Poland	Boleslaus [Pol-bol*ath*]	1000

			Anno Domini.
The 1st	King of Denmark	Olaus [Den-olakzou]	809
	King of Sweden	Bero [Swe-bkib]	831

The Memorial Lines.

Peft, Hygalo, Ori-galtyt, Const-arctoul, Turk-otto-madnoi,
Rom-jufs, Ital-ódops, Ger-charlmeig, Fran-pharamódy,
Sp-athfaz, Port-alabin, Scot-fergtid, Pol-bolath, Engkek,
Den-olakzou, Swe-bkib. ———

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TABLE XXIX.

The Times of the Writing of the Canonical Books of the New Testament.

	Anno Domini.		Anno Domini.
1 Thessal. } [Thes-le-t]	52	Titus and } [Ti-timsu]	65
2 Thessal. }	53	1 Timothy }	65
1 Peter [Pelf]	54	2 Peter } [Sec-pe-timaup]	67
Galatians }	57	2 Timothy }	67
1 and 2 COrinthians }	57	Jude [Judpa]	71
Romans [Gá-co-rup] }	57	Revelations [Revnau]	96
Philippians } [Phi-col-E-ph-Jase]	62	John Gospel and Epistles [Jonp]	97
Colossians }	62	Matthew [Mób or Matfa]	41
E-phesians }	62	Mark [Marot]	43
Philemon }	62	Luke [Laub]	61
James }	62	Acts [Acst]	63
Hebrews [Hebsi]	63		

The Memorial Lines.

Thes-le-t, Pelf, Gá-co-rup, Phi-col-E-ph-jase, Hebsi, Ti-timsu,
Sec-pe-timaup, Judpa, Revnau, Jonp, Mób, Marot, Acst, Laub.

TABLE XXX.

The Provincial and Legatine Constitutions, according to the Order in which they were made.

Constitutiones Editæ	A. D.	*Editæ*	Anno Domini
Stephani [Steph*ede*]	1222	R. Winchelsey [Winch*tyl*]	1305
Ricardi [Ricar*diz*]	1230	Walter [Wal*ted*]	1322
Edmundi [Edmun*dis*]	1236	Simon Mepham [Si-Meph*tek*]	1328
Othonis Card. Legati [Oth*dip*]	1237	J. Stratford [Stratfo*tod*]	1342
Bonifacii [Bon*esa*]	1261	S. Islepe [Islep*taud*]	1362
Othoboni Card. Leg. [Othob*dauk*]	1268	S. Langham [Langh*isp*]	1367
J. Peccham apud Reading [Pec-read*doin*]	1279	S. Sudbury [Sud-bu*toik*]	1378
Ejusdem, apud Lambeth [Pec-lambe*ka*]	1281	T. Arundel [A-run*fyk*]	1408
		H. Chichley [Chich*fal*]	1415

The Memorial Lines.

Steph*ede*, Ricar*diz*, Edmun*dis*, Oth*dip*, Othob*dauk*, Bon*esa*, Pec-read*doin*, Winch*tyl*, Pec-lambe*ka*, Wal*ted*, Stratfo*tod*, Islep*taud*, Si-meph*tek*, Chich*fal*, Arun*fyk*, Sudbu*toik* & Langh*isp*. ———

GEOGRAPHICA.

SECTION III.

The Application of this Art to Geography.

IN the first place are laid down the general divisions of Europe, Asia, Africa, and America; then the particular divisions of the several states of Europe, into their respective governments or provinces. For every division there is one *technical* line, composed of the first syllable, (or sometimes only of the first letters) of the parts or places into which it is subdivided; which syllables or letters are distinguished from the rest, in the tables, by small capitals, or an hyphen following.

It is further to be observed, that the beginning, middle, and ending of the line, answer, in order, to the *northern*, *middle*, and *southern* divisions of the kingdoms or countries; so that not only the places themselves, but, in some measure, their situation with respect to each other, may be remembered at the same time. Thus, in the *memorial line* for France, as it was before the revolution, Fra=P Nor-I-cham; Bret-O-BouL; Guí-La-DaP.

P Nor-I-cham denotes the four *northern* governments, viz. P-icardy, NORmandy, I-sle of France, and CHAMpagne.

Bret-O-BouL denotes the four *middle* governments, viz. BRETagne, O-rleanois, BOUrgogne, and L-ionnois.

Guí-La-DaP denotes the four *southern* governments, viz. GUIenne with Gascony, LANguedoc, DAuphiny, and P-rovence.

It will be yet some further help to remember the situation of places, to observe, that in the several

divisions I begin at the *west*, and go to the *eastward*, as far as the limits of the country will allow, in a straight line, unless where the irregularity of the position makes this method inconvenient or impracticable; where that is the case, the reader will supply the defect by his own observation, and by comparing with proper maps.

Observe further, that where the syllables are connected with an hyphen, the countries denoted by them are contiguous from west to east; thus,

Nor-I-cham shews that the Isle of France joins to Normandy on the east, and Champagne to the Isle of France on the east. Where the syllables or letters denoting two or more countries are joined together without an hyphen, there the countries are contiguous from north to south. Thus, Gui-La-DaP shews that Languedoc joins to Guienne on the east, Dauphiny and Provence to Languedoc on the east; and also that Provence is contiguous to and south of Dauphiny. Such syllables as have an hyphen preceding, but are not by it immediately joined to the foregoing syllable, signify that the countries denoted by them lie eastward, but are not contiguous. Thus, Sp -It -Turk shews that Italy is east of Spain, and Turkey east of Italy, but not contiguous.

When the reader is become well acquainted with the *general divisions*, he may then go on to charge his memory with the chief cities and most remarkable places of every country, their longitude and latitude, the correspondence of ancient and present geography, the geography of the Old and New Testament, the proportions of the states of Europe to Great Britain, the situation of the most noted islands, with other instructive and entertaining particulars in geography; all which he will find himself able to remember with greater ease than he could possibly have supposed before he became acquainted with the *memorial lines* contrived for that purpose.

TABLE I.

The general Divisions of Europe, Asia, Africa, and America.

I. EUROPE is divided into

1. *Northern*; containing NOrway, S-weden, RUs-sia; D-enmark:

2. *Middle*; comprizing the NEtherlands, GErmany, POland, Little T-artary; FRANce, SWITzerland, HUN-gary, TRANsilvania, MOldavia, WAlachia.

3. *Southern*; consisting of SPain with Portugal; ITaly, TURKey.

The Memorial Line.

EUR=No-S-Ru D; Né-Ge-Po-LT; Fran-Switz; Hun-Tran-Mo-Wa; Sp-It-Turk.

II. ASIA is divided into,

1. *Northern*; containing Great TArtary, GEOrgia.

2. *Middle*; including TURkey in Asia; PERsia, Empire of the MOgul, CHINA.

3. *Southern*; comprehending ARABia, East INDies.

The Memorial Line.

AS=Ta-Geo; Tur-Pé-Mo-Chin; Arab-Ind.

III. AFRICA is divided into,

1. *Northern*; containing BArbary, BILdulgerid, E-gypt.

2. *Middle*; subdivided into ZAara, NEgroland, GUInea, N-ubia.

3. *Southern*; consisting of CoNgo, ABissinia, coast of ABEX, coast of CAFraria, MoNomotapa, ZANGUE-bar, coast of AJAN.

The Memorial Line.

AF=BáBil-E; ZáNeGui-N; Con-Abiss-Abex, Caf-Mono-Zangu-Aj.

IV. AMERICA is divided into,

1. *N-orthern*; containing New WALes, New BER-

tain, Louisiana, CANada, MExico, FLORida, CARO-lina, VIrginia, MAryland, P-ensilvania, New YORk, New J-ersey, New ENGland, lying from south-west to north-east.

2. *S-outhern;* including Terra FIRMA, PERU, country of the AMAZons, BRAzil, CHIli, PARAguay, Terra MAGellanica.

The Memorial Lines.

N-AM=Wal-Brit,Lóuis-Can, Mex-Flor, Cár-Vi-Ma, P-YorJ Eng.
——S-AM=Fírm, Per-Amáz-Bra, Chi-Par, Mag.

TABLE II.

The particular Divisions of Northern Europe.

I. NORWAY is divided into five parts or governments, viz.

WARDhuys (including F-inmark and Norwegian LAPland) DRontheim, BERgen, ANslo.

II. SWEDEN was divided into four general parts, viz.

Swedish LApland with B-othnia intermingled, SWEden proper, FINland (lately seized by Russia) and GOTHland.

III. DENMARK contains

The peninsula of JUTland, ZEAland, and the lesser isles.

IV. RUSSIA contains many provinces, the most considerable of which are,

Northern; LAPland, DWIna or Archangel.

Middle; FINland, ESThonia, LIVonia, INGria, NOVgorod, MOScow.

Western; LITHuania, POLotsk, MOhilev, UKRaine, BELgorod.

Southern; BUDziak Tartary, CRIM Tartary or Taurida, VORonez, DON Kozacks.

The Memorial Lines for Northern Europe.

NOR=Ward (F-Lap) DroBerAns. SWED=Lá (B) Swep-Fin Goth.
DEN=Jut-Zea ——— ———
RUSS=Lap-Dwi; FinEstLiv; Ing-Nov-Mosc; Lith-Pol-Mo-Ukr-Bel; Bud-Crim-Vor-Donk.

TABLE III.

The particular Divisions of Middle Europe.

I. The NETHERLANDS, or Low Countries, heretofore were generally distinguished into the United or Dutch Netherlands lying to the north, frequently called Holland, and the former Spanish Netherlands to the south, often called Flanders, from the most remarkable province in each.

The United Netherlands, now incorporated with France, formerly were divided into seven provinces, viz. FRIESland, GRoningen, OVeryssel, H-olland, U-trecht, GUElderland with Zutphen, Z-ealand.

The Spanish Netherlands, now swallowed up by France, were usually divided into these ten provinces, viz, FLAnders, B-rabant, MARquisate of the empire within Brabant, seignory of MAlines within Brabant, part of G-uelderland, LIMburg, ARTois, HAInault, NAmur, LUXEMburg:

HOLL=Fries-GrOV H-U-Gue-Zu Z; Fla-B (Mar-Ma) GLim Art-Hai-Na-Luxem.

II. GERMANY was divided into nine circles:

Three *northern;* circle of WEstphalia, circle of *lower* SAxony, circle of *upper* Saxony.

Three *middle;* circle of *lower* RHIne, circle of *upper* Rhine, circle of FRANconia.

Three *southern*; circle of SUAbia, circle of BAvaria, circle of Austria.

To which may be added, the kingdom of BOHE-

MIA distinguished into four general parts, viz. LUsAtia, Silesia, BOhemia Proper, MoRavia.

GERM=We-Sal-*up*; Rhil-*u*-Fran; Sua-Bav-Aus.
BOHE=Lusa-Si-Bo*p*-Mor.

III. POLAND was divided into two general parts; the duchy of Lithuania, and the kingdom of Poland properly so called.

Lithuania, consisting of the duchy of Courland, SAmogitia, LITHuania proper.

The kingdom of Poland contained PRUssia, POLAcHia, MAZovia, POLand *magna*, Poland *parva*, little RUssia, VOLHInia, PODOLia.

POL=CouSa-Lith, Pru-Polach, Maz, Pol*mapa*, Rus-VolhiPodol.

IV. FRANCE was divided into twelve governments, now, including the conquered countries, into about 120 departments:

Four *northern;* P-icardy, NORmandy, I-sle of France, CHAMpagne.

Four *middle;* BRETagne, O-rleannois, BOURgogne, L-ionnois.

Four *southern:* GUIenne with Gascony, LANguedoc, DAuphiny, P-rovence.

To which may be added, the other countries comprehended within the compass of Old Gaul, viz.

LORrain, east of *Ch*ampagne.

SAvoy, east of Bourgogne or *Bu*rgundy and *Da*uphiny.

SWItzerland, east of Franché *C*-ompté.

Franché COmpté, east of *B*-urgundy.

FRA=P Nor-I-Cham; Bré*t*-O-BouL; Guí-La-DaP. Lor*Ch*, Sav*BuDa*, Swi*C*, Co*B*.

TABLE IV.

The particular Divisions of Southern Europe.

I. SPAIN (excluding Portugal) may be divided into two general parts:

Northern; containing eight provinces, viz. GALlicia, A-sturia, BIscay, N-avarre, ARAgon, CATalonia, LEon, Old (*vetus*) CAstile.

Southern; containing five provinces, viz. New (*nova*) CAstile, VALencia, ANDalusia, MURcia, G-ranada.

SPA = Gál-A-Bisc-N-Ara-Cat, Lé-Casvet; Casno-Val, And-MurG.

II. ITALY might formerly be distinguished into

Northern, or LOMbardy; containing PIedmont, MONTSerrat, MILan, G-enoa, VENice, MANtua, PARma, MIrandola, MODena.

Southern; LUcca, TUscany or Etruria, the PAPacy or States of the Church, NAPles.

IT = Lom (= Pi-Mont-MilG, VenManPa-Mi-Mód) Lu-Tu, Pap-Nap.

III. TURKEY in EUROPE may be distinguished into

Northern; containing BESSarabia, CROatia, D-altia, BOsnia, SErvia, BULGaria.

Southern; containing ALBania, MACedonia, ROMania, CHIMæra, JAnna, LIVADia, MORea.

TURK = Bess, CroD-Bó-Se-Bulg; Alb-Mac-Rom, Chim-Ja, LivadMor.

The Memorial Lines for all Europe.

NOR = Ward (F-Lap) Dro-BerAns. SWED = Lá (B) Swep)-FIn Goth.

DEN = Jut-Zea ——— ———

RUSS = Lap-Dwi; FinEstLiv; Ing-Nov-Mosc; Lith-Pol-Mo-Ukr-Bel; Bud-Crim-Vor-Donk.

HOLL = Fries-GrOv H-U-Gue-Zu Z; Fla-B (Mar-Ma) GLim Art-Hai-Na-Luxem.

GERM = We-Sal-*up*; Rhil-*u*-Fran; Sua-Bav-Aus.

BOHE = Lusa-Si-Bop-Mor.

POL = CouSa-Lith, Pru-Polach, Maz, Pol*mapa*, Rus-VolhiPodol.

FRA = P Nor-I-Cham; Brét-O-BouL; Guí-La-DaP. LorCh, SavBuDa, SwiC, ÇoB.

SPA=Gál-A-Bisc-N-Ara-Cat, Lé-Casvet; Casno-Val And-MurG.

IT = Lom (= Pi-Mont-MilG, VenManPa-MiMód) Lu-Tu, Pap-Nap.

TURK = Bess, CroD-Bó-Sc-Bulg; Alb-Mac-Rom, Chim-Ja, LivadMor.

TABLE V.

England, Wales, Ireland, and Scotland.

I. ENGLAND may be divided into three general parts, *northern*, *middle*, and *southern*; which all together contain 40 counties or shires.

The *northern* part of England contains 6 counties or shires:

On the west coast, from north to south,	On the east coast, from north to south,
CUMberland	NORthumberland
WEstmorland	DURham
LAncashire	YORkshire
[Cum-WeLa]	[NorDurYor]

The *middle* part of England contains 24 counties or shires:

On the west, joining to Wales from N. to S.	On the east coast, from north to south.
CHEshire } Shropshire } ——	Lincolnshire
HErefordshire ——	{ N-orfolk { S-uffolk
MONmouthshire	Essex
[CheShHeMon]	[Li NSEss]

Between Lincolnshire E. and Chesh and Shropsh. W.	Between Norfolk and Suffolk E. and Herefordshire W.	Between Essex E. and Monmouthshire W.
DErbyshire } N.	WOrcestershire	GLoucestershire
NOttinghamshire } N.	WArwickshire	O-xfordshire
STArfordshire	NOrthamptonsh.	Buckinghamshire
LEIcestershire	B-edfordshire	HERTfordshire
R-utlandshire	HUNtingdonshire	M-iddlesex
	C-ambridgeshire	
[De-No Staf-Lei-R]	[Wor-Wá-No-B Hun-C]	[Gl-O Buc-HerM

The *southern* part of England contains 10 counties or shires:

Between the Channel and the Severn sea.	Between the Channel and the Thames.
CORNwall	WILTshire
DEVonshire	BERkshire
SOmersetshire	HAMpshire
DOrsetshire	SURrey
	S-ussex
	KENt
[Corn-Dév-SoDo]	[Wilt-BerHa-SurS-Kén]

The Memorial Lines.

Cum-WeLa, NorDurYor, CheShHeMon, Li NSEss De-No Staf-Lei-R,
Wor-Wá-No-B-Hun-C, Gl-O-Buc-HerM, Corn-Dév-SoDo, Wilt-BerHa-SurS-Ken.

The Division of England according to the Circuits.

WESTERN.
Cor-dé-dor-ham, Som-wilt.

OXFORD.
Bar-O-gloúce-mon, wórcest-here-shrop-staff.

HOME.
Hert-éss-ken-sur-sus.

MIDLAND.
North-rut-linc, Derby-no-leice-war.

NORFOLK.	NORTHERN.
Nórf-su-cam, Hun-béd-buck.	Yor-dur-nor, láuca-we-cumber.

II. WALES is divided into two general parts:

North Wales; containing ANGlesey, CAERNarvonshire, DEnbighshire, FLIntshire, MERIonethshire, MONTgomeryshire.

South Wales; containing CARDiganshire, RADNORshire, PEMbrokeshire, CArmarthenshire, BREcknockshire, GLAMorganshire.

The Memorial Lines.

W=Ang-Cá-De-Fli-*ch*, Meri-Mont-*sh*; Card-Radn-*here*, Pem-Ca-BreGlam-*mon*.

N. B. The *italic* letters denote the adjoining counties of England; as *ch* Cheshire, adjoining to Flintshire; *sh* Shropshire, adjoining to Montgomeryshire; *here* Herefordshire; *mon* Monmouthshire.

III. SCOTLAND is divided into two general parts:

North Scotland, or Highlands, beyond the river Tay, containing 13 counties; among which are STRATHnavern, CAITHness, SUTHerland, Ross, LOCHabar, MURray, BRAIdalbin, P-erth.

South Scotland, on this side the Tay, containing 20 counties; some of which are ARGyle, FIfe, LOthian, AIRe, GALloway.

The Memorial Line.

SCOT=Strath-Caith, SúthRoss, Loch -Mur, BraiP; Arg -Fi, Lo-Air, Gal.

IV. IRELAND is divided into four larger parts or provinces:

ULSTer to the north	LEINster to the east
MUNSTer to the south	CONnaught to the west

The Memorial Line.

IREL=Ulst, Léin-Con, Munst.

TABLE VI.

Chief Cities and remarkable Places.

IN ANCIENT FRANCE.

Amiens ch. T. in *Picardy*	Bourdeaux in *Guienne*
Paris in the *Isle* of France	Thoulouse in *Lang*uedoc
Rouen in *Nor*mandy	Grenoble in *Dau*phiny
Troyes } in *Cham*pagne	Dijon in *Burg*undy
Rheims } in *Cham*pagne	Aix } in *Provence*
Rennes in *Bretagne*	Marseilles } in *Provence*
Poictiers in *Orl*eannois	Orange } in *Provence*

The Memorial Lines.

Am*pica*, P*isle*, Rou*nor*, Troy-rhei*cham*, Rén*breta*, Poict*orl*,
Bourd*gui*, Thou*lang*, Gren*dau*, Dijón*burg*, Aix-mar & Or*prov*.

IN THE NETHERLANDS.

Middleburg in *Zea*land	Dunkirk } in *Flanders*
Deventer in *Overyssel*	Douay } in *Flanders*
Leuwarden in *Fries*land	Mons } in *Hain*ault.
Brussels in *Brabant*	Cambray } in *Hain*ault.
Bruges in *Flan*ders	Loo in *Guel*derland
Charleroy in *Nam*ur	Antwerp in *Brab*ant

The Memorial Lines.

Mid*zea*, Devó*veryss*, Leuwár*fries*, Brús*braba*, Brug*flan*, Charl*nam*, Dunk-dóua*fland*, Mon-camb*hain*, Loo*guel* & Ant*brab*.

IN GERMANY.

Hamburg } ch. towns in low. *Saxony*	Francfort in Upper *Rhine*
Hanover } ch. towns in low. *Saxony*	Nuremburg in *F*ranconia
Wittenberg } in Upper *Saxony*	Munster in *West*phalia
Heidelburg } in Lower *Rhine*	Strasbourg } in Upper *Rhine*
Cologne } in Lower *Rhine*	Cleves in *Westpha*lia
Munich in *Bavaria*	Vienna in *Aust*ria
Augsburg in *Suab*ia	

The Memorial Lines.

Hamb-han*osal*, Wit*sup*, Hei-col*rhi*lo, Mun*bavar*, Aug-*suab*,
Franc*rh*up, Nur*F*, Muns*west*, Stras*rh*up, Clev*westpha*, Vienn*Aust.*

IN SPAIN.

BILboa in *Bis*cay	PAMPELuna in *Nav*arre
COMPostella in *Gal*licia	SARAGOSSA in *Ar*ragon
SEVille in *Andal*usia	BURGOS in *Cas*tile *vet*us
BARcelona in *Catal*onia	MADrid in *Ca*stile *no*va
OViedo in *Ast*uria	TORTosa in *Cat*alonia

The Memorial Lines.

Bil*bis*, Composg*al*, Sev*andal*, Bar*catal*, Ov*ast*,
Pampel*nav*, Sarag*ar*, Burg*cas-vet*, Mad-*ca-no*, Tort*cat.*

IN TURKEY IN EUROPE.

SOPHia } chief town in *Bul*garia	TERGOvisk in *Walach*ia
BELGrade in *Servi*a	HERMan-stadt } in *Transyl*vania
SERAIO in *Bos*nia	CHOCZIM in *Mo*ldavia
SPALatro in *Da*lmatia	CONSTANTI-nople } in *Rom*ania
SALONichi in *Mac*edonia	
CARLstat in *Cro*atia	

The Memorial Lines.

Soph*bul*, Belg*servi*, Serai*bos*, Spal*da*, Salon*mac*,
Carls*cro*, Tergó*walach*, Herm*transyl*, Chocz*imo*, Con*strom.*

TABLE VII.

Remarkable Places (sparsim) in Europe.

FONTARAbia in *Biscay*	CASsel in Upper *Rh*ine
RATisbon in *Ba*varia	ARCHangel in *Dwin*a
PADua in *Ven*ice	HOCHstet } in *Bav*aria
NIMeguen in *Guelder*land	BLENHEIM } in *Bav*aria
OLIva in *Pru*ssia	St. OMERS in *Art*ois
CONSTance in *Suab*ia	VERDen } in *low*er Saxony
AIX-LA-CHA-pelle } in *West*phalia	BREMen } in *low*er *Sax*ony
MONTPE-Lier } in *Lan*guedoc	MAGDeburg in *lo. Sax*ony
	CALais in *Pi*cardy
	BADen in *Su*abia

BENEVENTO in *Naples*
BREDA in *Brabant*
CADIZ in *Andalusia*
AGINCOURT in *Artois*
MITTAW in *Courland*
MALAGA in *Granada*
TRIERS in *lower Rhine*
MAESTRICH in *Limburg*
HAVRE-degrace } in *Normandy*
VALLEDOLID in *Old Castile*
TOLEDO in *New Castile*
MEAUX in *Champagne*
SOISSONS in *Isle* of France
AVIGNON in *Provence*
NASSAW in *upper Rhine*
CITADELLA in *Minorca*
CAGLIARI in *Sardinia*
PALERMO in *Sicily*
SLESWICK in *Jutland*
BASTIA in *Corsica*
CRACOW in *Poland parva*
WARSAW in *Mazovia*
BERGEN in *Norway*
COPENHAGEN in *Zealand*
NISMES in *Languedoc*
CHRISTIANA in *Aggerhuys*
TURIN in *Piedmont*
RIGA in *Livonia*
ROCHELLE in *Orleannois*
GOTTENBURG in *Gothland*
LUNDEN in *Sconen*
CRESSY in *Picardy*
SALAMANCA in *Leon*
ZELL in LOWER *Saxony*
CHAMBERRY in *Savoy*
DANTZIC in *Poland*
STOCK-holm } in *Sweden* proper
PRESBURG in *up. Hungary*

CORDOVA in *Andalusia*
CARTHAGENA in *Murcia*
BESAN-çon } in *Franché Comté*
LIEGE in *Westphalia*
CREMONA in *Milan*
BATCHI-serai } in the *Penin*sula of Little *Tartary*
NANCY in *Lorrain*
LEGHORNE, FLORENCE } in *Tuscany*
GENEVA in *Switzerland*
LISBON in *Portugal*
RAGUSA in *Dalmatia*
BRESLAW in *Silesia*
PRAGUE in *Bohemia*
STETIN in *Pomerania*
PERPIGNAN in *Rousillon*
TRENT in *Tyrol*
STRASBURG in *Alsace*
POLA in *Istria*
POSEGA, PETERWA-RADIN } in *Sclavonia*
BERLIN in *Brandenburg*
DRESDEN, LEIPSIC } in *Saxony*
RAVENNA in *Romagna*
LORETTO in *Ancona*

ROUSIL-lon } part of *Catalonia*.
SCLAVONIA of *Hungary*
TYROL of *Austria*
POMERANIA, BRANDENBURG, SAXONY } of Upper Saxony
and ISTRIA } of the late *Venetian* territories.

ANCONA ROMAGNA	part of the *Papacy* or states of the Church	BERRY ANJOU	of *Orl*eannois
		HOLSTEIN	part of LOWER *Saxony*
LIMOSIN part of *Guienne*		CAPITANATE part of *Naples*	

The Memorial Lines.

Fontárab*isc*, Rati*bav*, Pad*ven*, Nim*gu'lder*, Oli*vprus*, Const*suab*, Aix-la-cha*west*, Montpel*lang*, Cass*rh*up & Arch*dwin*,

Hoch-blenhe*bav*, Omer*art*, Verdbrems*a-lo*, Magd*sa-lo*, Cal*pic*,

Bad*suab*, Benven*nap*, Bred*brah*, Cad*andal*, Aginc*art*, Mit*courland*, Mala*gran*, Trier*hi-l*, Macst*limbur*, Ha-vred*norm*,

Valedolo*C*, Tol*new**C*, Meaux*cham*, Soiss*isle* & Avig-*prov*,

Nass*rh-up*, Citadel*min*, Cag*sard*, Paler*sici*, Sles*jut*, Bast*corsic*, Craco*pol*p, Wars*mazov*, Berg*eno*, Cop*zeal*, Nism*langued*, Christ*agg*, Turín*pied*, Rig*ali*, Roch*orl*, Go*G*, Lund*scon*, Cress*pic*, Salamanc*le*, Zell*sa*lo, Cham-*sav*,

Dantzíc*pol*, Stock*swe*p, Prós-up*hung*, Cord*andalu*, Cart*mur*,

Bes*fran-com*, Liege*west*, Crem*mil*, Batch*tarta-pe*, Nan*lor*, Leg-Flor*tusc*, Gen*swit*z, Lís*P*, Rag*dal*, Bres*sile*, Prag*bo*, Stet*pomeran*, Perp*rous*, Tren*tyr*, Strasb*alsa*, Pol*istri*, Pos-waras*clav*, Berl*bran*, Dres-Leip*sax*, Rav*ro*, Lo-rett*anc*,

Rous*catalon*, Sclav*hung*, Tyrol*aust*, Pom-brand-sa*Sup*, Ist*ven*,

Anc-Rom*pap*, Limo*guienn*, Berr-Anj*orl*, Holst*sa*lo, Cap*nap*.

TABLE VIII.

Some chief Cities and remarkable Places in Asia, Africa, and America.

PEKIN capital of *China*	ISPAHAN in *Persia*
AGRA in *India*	ALEPPO capital of *Syria*
CHAMBALU in *Tartary*	CAIRO in *Egypt*

Fez in *Barbary*
Daara in *Bildulgerid*
Tombute in *Negroland*
Monomotopa in *Æthiopia superior*
Dangola in *Nubia*
Chaxumo in *Æthiopia inferior*
S. Fé in *Granada*
S. Salvador in *Brazil*
S. Jago in *Chili*
Assumption in *Paraguay*
Quebec in *Canada*
Philadelphia in *Pensilvania*
James Town in *Virginia*
Baltimore in *Maryland*
Portroseway in *Nova Scotia*
Astrachan in *Tartary*
Nicosia in *Cyprus*
Mousul, Bagdat in *Diarbec*
Smyrna in *Natolia*
Azov in *Circassia*

Natolia, Syria, Diarbec, Turcomania — Parts of *Turkey* in Asia
Mingrelia of *Georgia*
Caramania, Amasia, Natolia prop., Aladulia — of *Natolia* largely taken

The Memorial Lines.

Pek*chin*, Agr*ind*, Chamb*tart*, Isp*pers*, Alép*syri*, CairE,
Fez*barb*, Daa*bildul*, Tomb*neg*, Monom*æth-supe*, Dang*nub*,
Chax*æth-inf*, Fé*gran*, Salv*braz*, Jagó*chili*, Ass*par*,
Queb*canadá*, Phil*pens*, Jam*virgin*, Balt*mary*, Port*no-sc.*
Astrac*tart*, Nico*cyp*, Mous-Bag*dia*, Smyr*nat*, Azov*circ.*
Nat-Syri-Di-Turc*tur*, Ming*georg*, Car-Amás-Nat-Aládnat.

TABLE IX.

Latitude and Longitude of the most remarkable Places.

To the beginning of the name of the place is added a *technical* ending, consisting of three or four letters, the two first whereof denote the latitude, the other the longitude: thus,

Stock*lou-ak*, i.e. Stockholm in the 59th degree

of latitude, and 18 of longitude; *lou* standing for 59, according to the general key, and *ak* for 18. But this is not the *exact* longitude and latitude of the place, because no minutes are taken notice of, which would perhaps be a nicety not worth remembering: but that the latitude is between 59 and 60, and the longitude between 18 and 19.* And it is farther to be observed, that if of the two letters which signify the longitude and latitude, the first is a *consonant*, as in *lou*, in that case, though the longitude, &c. is between 59 and 60, yet it is nearer to 60 than it is to 59, and consequently 59 degrees 30 minutes at least, if not more. If the first letter is a vowel, as in *ak*, though it is between 18 and 19, yet it is nearer to the *lesser* number, and consequently 18 degrees and *under* a half; as the true longitude of Stockholm is 18 deg. 22 min. the true latitude 59 deg. 30 min.

	Lat.	Lon.		Lat.	Lon.
†Bergen [Ber*sy-l*]	60	5	Constantinople [Con*ob-ta*]	41	31
Stockholm [Stock*lou-ak*]	59	18	Prague [Prag-*ly-bo*]	50	14
Moscow [Mos-*lu-tet*]	55	38	Dantzic [Dantz*uf-bei*]	54	18
Copenhagen [Cop*lu-be*]	55	12	Basil [Básil*foi-p*]	47	7
Paris [Par*fk-e*]	48	2	Brussels [Brus*ly-o*]	50	4
Cracow [Cra-*cúz-ez*]	50	20	†Gibraltar [Gib*tau-s*]	36	6
Vienna [Vi*ok-ap*]	48	17	†Smyrna [Sm*ik-doú*]	38	29
Madrid [Ma-dr*oy-t*]	40	3	Troy [Tr*oy-en*]	40	29
Rome [Rom*fá-be*]	41	12			

* This accuracy hath not been altogether observed in those places which have this mark (†) placed before them; the assigning to them their respective degrees of longitude and latitude being intended only to enable the learner to remember in what part of the globe they are situated.

	Lat.	Lon.
†Jerusalem [Jeru*ta-ts*]	31	36
Aleppo [Ale*pís-tei*]	36	38
Rhodes [Rho*toi-te*]	37	32
†Babylon [Ba*bit-fo*]	33	44
Athens [Ath*ik-el*]	38	25
Ida [Id*il-doi*]	35	27
Warsaw [War*súd-eb*]	52	21
Alexandria [Alex*ib-if*]	31	34
S. Helens [Hel*bu-p*]	15	7
Lisbon [Lis*tei-bz*]	38	10
Naples [Napl*ob-bu*]	41	15
Messina [Mes*sik-bau*]	38	16
†Carthage [Carth*ti-by*]	33	10
Nancy [Nan*fei-s*]	48	6
†Ispahan [Isp*te-on*]	32	49
Agra [Agr*ék-oit*]	28	73
Siam Siam*af-ga*]	14	100
†Japan [Jap*to-bay*]	34	110
†Formosa [Form*di-g*]	23	100
†Astrachan [Astr*op-lau*]	47	56
Pekin [Pekin*oz-bap*]	40	117

	Lat.	Lon.
†FortSt.George [Gëo*bi-sou*]	13	69
†Spitsbergen [Spit*pi-sou*]	73	69
Archangel [Arch*só-fe*]	64	42
Bengal [Beng*dá-oul*]	21	95
Venice [Ven*fl-ad*]	45	12
Cairo [Cair*dou-il*]	29	35
Leipsic [Leip*sub-ad*]	51	12
†Hecla [Hec*sl-at*]	65	13
†Nineveh [Nin*to-fe*]	34	42
†Porto Bello [Bel*bá ku*]	11	85
†Porto Rico [Ric*éz-lou*]	20	59
†Bermudas [Berm*ta-lou*]	31	59
†Jamaica [J*ak-ky*]	18	80
†Tercera chief of the Azores I. [Terce*rip-el*]	37	25
†Madeira Isles. [Mad*it-ed*]	33	22
†Barbadoes [Bar*bu-la*	15	51
Ferro one of the Canary Isles [Ferr*ek-ak*]	28	18
†Quebec [Qu*op-pu*]	47	75

N. B. The first meridian is fixed at London.

It may be convenient to remember the *exact* longitude and latitude of some particular places; as,

	Lat. deg. min.	Long. deg. min.
LONDON [Lón*la*, *ib*] .	51 31	00 00
FERRO Isl. [Ferr*ép*, *op-ap*, *il*]	27 47	17 35W
Oxford [Ox*lá*, *fs-b*, *al*]	51 46	01 15W
ROME [Róm*fa*, *lo-bé*, *dou*]	41 51	12 29E

The Memorial Lines.

Ber*sy-l*, Stock*lou-ak*, Mos*lu-tei*, Cop*lu-be*, Par*fk-e*, Cra*cúz-ez*, Vi*ok-ap*, Madr*oy-t*, Rom*fá-be*, Con*ob-ta*, Prag*ly-bo*, Dantz*uf-bei*, Básil*foi-p*, Brus*ly-o*, Gib*tau-s*, Sm*ik-dou*, Tr*oy-en*, Jeru*ta-ts*, Ale*pís-tei*, Rh*otoi-te*, Bab*it-fo*,

At*hik el*, Id*il-doi*, Wars*úd-eb*, Alex*ib-if*, Hel*bu-p*, Lis*tei-bz*, Nap*lob-bu*, Mess*ik-bau*, Carth*ti-by*, Nan*fei-s*, Isp*te-on*, Agr*ék-oit*, Siam*af-ga*, Jap*to-bay*, Form*di-g*, Astr*op-lau*, Pekin*oz-bap*, Gëo*bí-sou*, Spit*pi-sou*, Arch*ó-fe*,

Beng*dá-oul*, Ven*fl-ad*, Cair*dou-il*, Leips*ub-ad*, Hec*sl-at*, Nin*to-fe*, Bel*bá-ku*, Ric*éz-lou*, Berm*ta-lou*, J*ak-ky*, Terc*erip-el*, Mad*it-ed*, Ferr*ek-ak*, Bar*bu-la*, Qu*op-pu*.

Lón*la*, *ib*; Fer*ép*, *op-ap*, *il*; Ox*la*, *fs-b*, *al*; Róm*fa*, *lo-bé*, *dou*.

TABLE X.

Distance of chief Cities, &c. from London, in English Miles.

To the beginning of the name of the place there are two or three letters added, which are to be supplied with a cypher at the end; it being thought sufficient to give a round number, instead of being too exact, especially in a matter wherein the best geographers themselves are not agreed: as,

[Madr*eis*] MADRID distant from London 86, *sc.* 860 miles. COPENHAGEN [Cop*sa*] distant about 61, *sc.* 610. GENEVA [Gene*vos*] distant 46, *sc.* 460 miles; and so of the rest, only PARIS [Par*del*] 225.

Note, That the computations are made at the rate of 69½ statute miles to a degree, which is nearest the truth, and are therefore about one part in seven more than in Mr. Templeman's tables, who computes by geometrical miles of 60 to a degree.

DISTANCES FROM LONDON.

	Eng. miles.		Eng. miles.
PARis [Par*del*]	225	PRague [Pr*aul*]	650
R-ome [R*oul*]	950	GIBRaltar [Gibr*abs*]	1160
MADRid [Madr*eis*]	860	WARsaw [Wars*nu*]	950
VIENna [Vien*ke*]	820	STockholm [St*oup*]	970
COPenhagen [Cop*sa*]	610	DANTZic [Dantz*iky*]	800
GENEva [Genev*os*]	460	CONSTantinople [Const*asg*]	1600
Moscow [Mosc*ass*]	1660		

DISTANCES FROM JERUSALEM.

BABylon [Bab*oky*]	480	DAMascus [Dam*buz*]	150
NAZareth [Naz*ky*]	80	ANTioch [Ant*ig*]	300
SAMaria [Sam*ol*]	45		
From DAN to BEERsheba [Dan-a-béer*doz*]			240

The Memorial Lines.

Par*del*, R*oul*, Madr*eis*, Vien*ke*, Cop*sa*, Gen*evos*, Mosc*ass*, Pr*aul*, Gibr*abs*, Wars*nu*, St*oup*, Dantz*iky*, Const*asg*.

Bab*oky*, Naz*ky*, Sam*ol*, Dam*buz*, Ant*ig* + Dan-a-béer*doz*

TABLE XI.

The Proportion of the Countries of Europe to Great Britain, that Island being the Unit.

Russia [Russ-*az-bi*]	10 ,13	POLand [Pol*t,in*]	3 ,39
GERMany [Germ*t,ut*]	3 ,53	TURkey [Tur*t,ak*]	3 ,18
Sweden [Sw*i,ss*]	3 ,66	SPain [Sp*a,ka*]	1 ,81
		FRance [Fr*a,p*]	1 ,7
		*ITaly It*b-an*]	1 ,19

* With Sicily, Corsica, and Sardinia.

*DENMARK [Déumab,*on*]	1 ,49	UNited PRovinces† [Un-pr,*ab*	,11
PORtugal [Por,*ts*]	,36	SWITZERland†] [Switzer,*boi*]	,17
SPANish N-etherlands† [Span-n,*ak*]	,18	Britain	1 ,00

The Memorial Lines.

Russ*az-bi*, Germ*t*,*ut*, Sw*i*,*ss*, Pol*t*,*in*, Fr*a*,*p*, Sp*a*-*ka*, Tur*t*,*ak*,
Por,*ts*, Span-n,*ak*, Un-pr,*ab*, Switzer,*boi*, Dénma*b*,*on*, It*b*,*un*.

EXPLANATION.

[Ger*t*,*ut*,] Germany is to Great Britain as 3 ,53 to 1. *i. e.* three times as big, and a little above half as big. United Provinces [Un-pr,*ab*] as ,11 or very little above a tenth part; and so of the rest.

Note, That a degree is esteemed equal to 60 GEOMetrical miles, 69½ English statute miles, 15 GERman miles, 25 common FRench leagues, 480 Greek STADia, 16 PERsian PARASangs, 12 (or according to some 8) Ægyptian SCHœni.

Deg=Geöm*auz*=Ger*bu*=Fr*el*=Stad*oky*=Perspara*báu*=Sch*ad*.

TABLE XII.

Situation of Islands.

I. EUROPEAN ISLANDS.

In the Northern Ocean	ICEland west of *Nor*way [Ice*nor*] Britain and Ireland.		
In the Baltic	ZEALand FUNen	E. of *Jut*land [Fun-Zea*jut*]	
In the Mediterranean	MInorca MAJORca Y-vica	East of *Valencia*	[MiMajorc Y*valenci*]

* Including Norway and Iceland.
† Now in possession of France.

In the Mediterranean
- COrsica, SARDinia — S. of *Gen*oa [CoSard*gen*
- SICIly south of *Na*ples [Sic*ina*]
- CANDia south of the *Archipe-lago* [Cand-*archpel*]
- CORFU west of *But*rinto [Corf*but*]
- CEPHAlonia W., ZANTe W., CErigo S. — of the *Morea* [Cepha-Zant-C*emo*]
- NEGropont east of *Liv*adia [Neg*liv*]

The Memorial Lines.

Ice*nor*, FunZeal*jut*, MiMajorcY*valenci*, CoSard*gen*, Sic*ina*,Cand*archpel*,Corf*but*,CephaZantC*emo*,Neg*liv*.

II. ASIATIC ISLANDS.

In the Eastern Ocean.
- JApan E. of *N*orth *Ch*ina [Jap*norCh*]
- FORMOSA E. of *Sou*th *Chin*a [Formó*souChin*
- PHILIPpine Isl. E. of the *East*ern *Pen*insula [Philip*East*-*Pen*]
- LADrone Isl. E. of the *Phi*lippines [Lad*phi*]
- MOLUCca Isl. E. of the *East*ern *P*-eninsula [Molúc*PEast*]
- Isles of the SOUND S. E. of the *East*ern *P*-eninsula [Sound-*PEast*]
- MALdives S., CEYlon E. — of the *West*ern *P*-eninsula [Mal-Céy-*Pwest*]]

In the Mediterranean
- RHODes, CYPrus — S. of *Nato*lia [RhodCyp*nato*

In the Archipelago
- STALimene, MEtelin, SCIo, SAMos — W. of *Nat*olia N. to S. [StalMeSci-Sám*nat*]

The chief of the MOLucca Isles are CELEbes or Macassar, GILolo, CERam, AMBOyna.

The chief of the PHILippines are MANilla and MINDanao.

Isles of the SOUND, the chief are SUMAtra, BORNEO, and JAva.

The Memorial Lines.

Japnor*Ch*, Formósou*Chin*, Philip*EastPen*, Lad*phi*, Molúc*PEast*,
Sound*PEast*, MalCéy*Pwest*, Rhod-Cyp*nato*, StálMc-SciSám*nat*.

Mol=Cele-GilCér-Amb. Phil=ManMind. Sound =Suma-BoruJav.

III. AFRICAN ISLANDS.

In the Æthiopic Ocean	Madagascar or the Isle of St. Laurence, E. of the south part of *Zang*uebar	[Madgasc*zang*]
	Zocotra, at the east end of the coast of *Ajan*	[Zoc*ajan*]
	St. Helens west of *Congo*	[Hel*Congo*]
In the Atlantic Ocean	Isles of Cape Verd, W. of *Ne*groland	[Verd*ne*]
	Canary Isles W. of *Bild*ulgerid	[Canár*bild*]
	MadeiraIslesW. of *Barb*ary	[Madéir*barb*]
	AZore Isles W. of *Port*ugal	[Az*port*]
In the Mediterranean	Malta S. of *Sic*ily	[Malt*sic*]
	Pharos at the mouth of the port to *Alexan*dria	Phar*alexan*

The chief of the Canary Isles are Ferro or Hiero, Teneriffe, Canary.

The chief of the AZores, Tercera.

The chief of the Madeira Isles, POrto Santo and Madeira.

The Memorial Lines.

Madgasc*zang*, Zoc*ajan*, Hel*Congo*, Verd*ne*, Canár*bild*, Madéir*barb*, Az*port* ——— Malt*sic*, Ph*aralexand*.

Can=FerHi-TeneCan; Az=Terce; Madeira=Po-SantMad.

IV. AMERICAN ISLANDS.

Newfoundland east of *Nov*a *Scot*ia [Newf*novScot*]
California west of New *Gran*ada [Cali*gran*]

CARIBbee Isles east of the *Ant*illes [Carib*ant*]
LUCAYOS Isles east of *F*-lorida [Lu*F*]
BERMUDAS or Sommers' Isles east of *Car*olina } [Berm*car*]
ANTILLES Isles south of *Luc*ayos Isles. [Antíl*luc*]

The chief of the LUCAYOS Islands are BAHAMA, LUCAYONE, PROVIDENCE.

The chief of the CARIBBEE Islands are BARBADOES and the Leeward Isles, viz. St. CHRIstopher's, ANTigua, TOBAGO, &c.

The chief of the ANTILLES Islands are CUBA, JAMAICA, HISPANIOLA, PORTO RICO.

The Memorial Lines.

Newf*nov*S*cot*, Cali*gran*, Carib*ant*, Lu*F*, Berm*car*, Antíl*luc*.

Luc=Ba-Lu-Prov ; Cari=Barb, Chr-Ant-Tob; Antill=Cu-Jam-Hisp-Ric.

TABLE XIII.

The most remarkable of the lesser British Isles.

ORKNEY, SHETland } *N*orth of *Sc*otland [Ork-shet*no-sc*]
HOLY Island east of *North*umberland [Holy*north*]
CANVEY Isl. } near the mouth of the Thames in } *Essex* [Can*vess*]
SHEPPEY Isl., THANET } near the mouth of the Thames in } *Kent* [Shep-than*ken*]
ANGLESEY west of *Caern*arvonshire [Ang*caern*]
MAN west of *Lan*cashire [Man*lan*]
RAMSEY over against St. *Davi*d's Point in *Pem*brokeshire } [Ram*davi-pem*]
Wight (VECTIS) *S*. of *Ham*pshire [Vec*S-ham*]
GUERNSEY, JERSEY } on the *Co*ast of *Nor*mandy } [Guer-jer*co-nor*]
Western Isl. (EBUDÆ) *W*est of *Sc*otland [Eb*we-sc*]

The Memorial Lines.

Ork-shet*no*-*sc*. Holy*north*, Can*vess*, Shep-than*ken* & Ang*caern*,
Man*lan*, Ram*davi-pem*, Vec*S*-*ham*, Guer-jer*co*-*nor*, Eb*we*-*sc*.

TABLE XIV.

Ancient Europe, Asia, and Africa.

I. Ancient EUROPE, by way of accommodation to the present divisions of it, may be divided into,

1. *Northern;* containing ScAndinavia, Feningia, part of SARMatia, CIMBrica Chersonesus, CODanonia Insula.

2. *Middle;* containing GERmania, the rest of S-armatia, G-allia Transalpina or Celtogalatia, RHŒtia, V-indelicia, NOricum, part of PAnnonia, D-acia.

3. *Southern;* containing IBeria, ITAlia, the rest of P-annonia, ILLyricum, MŒsia, G-ræcia, THracia.

EUR=Sca-Fe, Sarm, Cimb-Cod; Ger-S, G-Rhœ-V-No-Pa-D; Ib-Ita-PIll-MœG-Th.

II. ASIA Antiqua may be divided into,

1. *Northern;* containing SCYTHia Asiatica, SOGDiana; COLchis, IBeria, ALBania.

2. *Middle;* containing Asia *M*-inor, ARMenia; SYria, MEsopotamia, ASSyria, MEDia, HYrcania, BACTriana, ARACHosia; BABylonia, SUSiana, PARTHia, ARIa, DRANgiana; PERSis, CARamania, GEDROsia. N-orth part of INDia, SErica, SINæ.

3. *Southern;* containing ARabia, the two P-eninsulas of INDia.

AS=ScythiSogd, Col-Ib-Alb; As*m*-Arm, Sy-Mes-Ass-Med-Hy-BactArch,
Bab-Sus-Parth-AriDran, Pers-Car-Gedro; N.Ind-Se Sin; Ar-P-Ind.

III. AFRICA was anciently divided into,

1. *Northern;* containing MAuritania, T-ingitania, and CÆsariensis, NUMIDIA, AFrica *Propria*, LIBYA, comprehending CYRenaica and MARmarica) E-gypt; GÆTuli, GARAmantes, NAsamones, PSYLli.

2. *Middle;* containing LIBYA DEserta or *interior*, comprehending the ATLANTes, PHAUrusii, NIGritæ, NUBia, ÆTHiopia.

3. *Southern;* containing the LEUCÆTHiopes, EREMbi or Troglodytæ, BLEMmyes.

AF = MauT-*Cæs*-Numid-A*fp*-Liby-(Cyr-Mar)-E; GætGara-NasPsyl;
Liby*des* = AtlántPhauNig-Nub-Æth; Léucæth-EremBlem.

TABLE XV.

Ancient Italy and Greece, Asia Minor, Syria, and Palestine.

1. Ancient ITALY may be distinguished into two general parts; Gallia Cisalpina to the north, and Italy, primarily so called, to the south.

The several people of Gallia Cisalpina were these:

* LIGures, TAURini, SEGusiani, SAlassi, LEPontii, EUGanei, RHÆTi, CARni, Istri, VENeti: (south of the P-o these) A-nanes, BOii, LINGones, SENones; (north of the Po these) LIBici, LÆvi, INsubres, OROBii, CENomani.

ITalia, primarily so called, or the south parts of Old Italy, comprehending these following countries and people:

†ETRuria or Tyrrhenia, SABini, LAtium, CAMpania, PICentini, G-ræcia magna; ‡UMbria, PICe-

---

* Lying in order along the Alps.
† Lying in order the Mare Inferum.
‡ Lying in order on the Mare Superum.

num, V-estini, Marucici, Frentani, Apulia; *Marsi, Peligni, Samnium, Hirpini.

Cis=Lig-Tau-Sé-Sa-Lép-Eug-Rhæt-Car-Is, Vén (P) A-Bo-Ling-Sen.

Lib Læv-Ins-Oro-Cen ———

It = Etru-Sab-Lá-Ca-Pi-G, Um-Fí-V-Ma-Fr-Ap Mars-PeliSamn-Hirp.

II. Ancient GREECE was usually divided into five general parts, viz. Macedonia, Thessalia, Epirus, Hellas or Græcia properly so called, and Peloponnesus.

Græ=MáTh, Epir-HelPel ———

1. Peloponnesus was divided into six parts or regions, viz. †Achaia, Elis, Messenia, Laconia, Argia or Argolis, ‡Arcadia.

——— Pelop=Ach-Efi-Méss-Lac-Ar-Arcad.

2. Epirus contained these people and countries, viz. Chaones, Dryopes, Thesprotii, Cassiopæi, Amphilochi, Almene, Molossi, Acarnania.

Ep = Chao-Dry, Thesprot-Cass-Amphiloc, Al-Mol Acarnan.

3. Hellas, or Græcia propria, (called also Achaia,) was divided into eight parts, viz. Doris, Locris-*Epicnemidia*, Ætolia, Locris-*Ozolæa*; Phocis, Bœotia, Megaris, Attica.

Græ-propri=Dó-Locr*ep*, Æto-Locr*óz*,-Pho,-Bœ-Meg-Att.

4. Thessalia contained these several parts, viz. Pelasgiotis, Estiotis, Thessaliotis, Pthiotis, Magnesia.

Thess=PelasEstThéss-Pthi-M ———

* In the inland parts.

† Lying in order on the Ionian, Ægean, and Cretan Sea.

‡ In the inland.

5. Some of the more remarkable people and countries of MACEdonia were, TAULantii, PÆones, MYGDOnia, ÆMATHia, AMPHaxitis, PIEria.

——MACE=Taul-Pæo-Mygd-Æmath -AmphPi.

ASia *m-inor* comprehended ASia *p-ropria*, BITHY-nia, POntus, GAlatia, *CAPPadocia;—LYCIA, PAMPHYlia, CILicia.

Asm = Asp-Bith-Pó-Ga-Capp : Lici-Pamphy-Cil —

ASia *p-ropria* contained PHRYGIA *min-or*, MYSIA *mi-nor*, Mysia *m-ajor*, ÆOLis, IONIA, LYDia, PHRYgia *ma-jor*, CARia, DOris.

Asp=Phrygi*min*-Mysi*miM*, Æol Ioni-Lyd-PHRY*ma*, CarDo.

GALatia comprehended PONtus GALAticus, PAPHlagonia, GALAtia *p-ropria*, ISauria, and part of PISidia; the other part of which, with the regions of Carbalia, was contained in Pamphylia.

——— Gal=PongalaPaphGalap Is-pis.

SYRia was divided into four parts: SYRia *p-ropria*, PHŒNicia, CŒLOsyria, PALestina.

PALestine was distinguished into GALilæa, SAMAria, JUDÆa, PERæa or Judæa beyond Jordan, IDUMæa.

SYR = SyrpPhœn-Cœlq-Pal. PAL = GálSamaJudæ-Per Idum.

TABLE XVI.

Ancient Gallia, Germania, Iberia, Britannia.

1. GALLia was divided by Augustus into four parts or provinces, viz. Gallia BELgica, Gallia CELTica,

* Among the several regions of Cappadocia was Lycaonia.

or Lugdunensis, Gallia Aquitanica, and Gallia Narbonensis. [Gall=BelCeltAquiNarb.]

2. The inhabitants of ancient Germany were comprehended under four general denominations, viz. Ingævones, Vandali, Istævones, Hermiones. [Germ=Ing-Vand Ist-Her.]

3. Iberia, or ancient Spain, was distinguished into three general parts, viz. Tarraconensis, Lusitanica, B-œtica [Iberi=TarLuB.]

4. Britannia, according to the last division by the Romans, was distinguished into five parts, viz. Valencia, Maxima *Cæsariensis*, Britannia *se-cunda*, Flavia *Cæsariensis*, Britannia *prim-a*, [Brit=Val-Max, Britse-Fla, Brit*prim*.]

Gall = BelCeltAquiNarb. Germ = Ing-Vand Ist-Her. I = TarLuB.
——Brit=ValMax, Brit*se*-Fla, Brit*prim*.

The Memorial Lines for all the ancient Geography.

EUR=Scá -Fe, Sarm, Cimb-Cod ; Ger-S, G-Rhœ-V-No-Pa-D ; Ib -Ita -PIll-MœG-Th.

AS=ScythiSogd, Col-Ib-Alb ; As*m*-Arm, Sy-Mes-Ass-Med-Hy-BactArch,
Bab-Sus-Parth-AriDran, Pers-Car -Gedro , N.Ind -Se Sin ; Ar -P-Ind.

AF = Mau*T*-*Cæs*-Numid-Af*p*-Liby-(Cyr-Mar)-E ; GætGara-NasPsyl ;
Liby*des* = AtlántPhauNig-Nub-Æth ; Léucæth-EremBlem.

Cis=Lig-Tau-Sé-Sa-Lep-Eug-Rhæt-Car-Is, Vén (P) A-Bo-Ling-Sen.
Lib-Læv-Ins-Oro-Cen ——
It = Etru-Sab-Lá-Ca-Pi-G, Um-Pi-V-Ma-Fr-Ap Mars-PeliSamn-Hirp.

Græ = MáTh, Epir-HelPel. Pelop = Ach-Eli-Méss-Lac-Ar-Arcad.

Ep=Chao-Dry, Thesprot-Cass-Amphiloc, Al-Mol Acarnan.

GRÆ-PROPRI=Dó-Locrep, Æto-Locróz, Pho, Bœ-Meg-Att.
THESS = PelasEstThéss-Pthi-M. MACE=Taul-Pæo-Mygd-Æmath-AmphPi.
ASm=Asp-Bith-Pó-Ga-Capp. Lyci-Pamphy-Cil —
ASp=PhrygimiMysimiM, Æol Ioni-Lyd-Phryma, CarDo.
——— Gal = PongalaPaphGalap Is-pis.
SYR=SyrpPhœn-Cœlo-Pal. PAL = GálSamaJudæ-Per Idum.
GALL = BelCeltAquiNarb. GERM=Ing-Vand Ist-Her. I=TarLuB.
———BRIT = ValMax, Britse-Fla, Britprim.

TABLE XVII.

Remarkable Places in ancient Geography.

ABDERA in *Thracia*
BERYTUS in *Phœnicia*
HELICON in *Phocis*
HALICARNASSUS in *Doris* in *Asia* minor
CHERONÆA in *Bœotia*
CANNÆ in *Peucetia*
ARBELA in *Assyria*
GRANICUS river of *Phrygia*
MÆANDER river of *Lydia*
TAGUS river of *Lusitania*
ISSUS promont. of *Cilicia*
PATMOS one of the *Sporades* Islands
OLYMPIA in *Elis*
PYLUS in *Messene*
MARATHON in *Attica*
DELPHOS in *Phocis*
SAMOSATA in *Comagene*
DYRRACHIUM in *Macedonia*

THESSALONICA in *Amphaxitis*
NICOMEDIA in *Bithynia*
NYSSA in *Megaris*
ACROCERAUNIA mountain in *Epirus*
CITHÆRON m. in *Bœotia*
HYMETTUS m. in *Attica*
ATHOS m. in *Macedonia*
OLYMPUS, PELION, OSSA } mountains in *Thessalia*
MANTINEA in *Arcadia*
EPIDAURUS in *Laconia*
PELLA in *Æmathia*
ACTIUM, AMBRACIA } in *Acarnania*
SMYRNA, EPHESUS } in *Ionia*
PERGAMUS in *Mysia*
LAODICEA in *Caria*.

SARDis } in *Lyd*ia
THYAtira
PHILadelphia
SARDica in *Thracia*
CHALcedon in *B*-ithynia
CIRTium in *Num*idia
ILLIBeris in *Hisp. Bœt*ica
ANcyra in *Gal*atia
GANGra in *Paph*lagonia
SIRMium in *Pan*nonia
NEOCÆsarea in *Cap*pa-docia
PHARSalia in *Thess*alia
*PHILIPPi in *Thracia*
LEUctra in *Bœ*otia
CLUsium in *Etru*ria
BAIæ in *Campa*nia
TUsculum in *Lat*ium
AQUILEIA of the *Car*ni
EDEssa in *Mes*opotamia
RHEGium in *Calabria*
TOmi in *Mœs*ia
DAMascus in *Cœlo-S*-yria
COLOssæ in *Phrygia*
SAGuntum in Hispania *Tar*raconensis
BRUNDusium in *Cala*-bria
COMagene a region of *S*-yria propria
DODONE a town of the *Mol*ossi
SPARTA in *Lac*onia
ANTIOCHia in *Pisid*ia
ANTium of the *Vols*ci
AMYClæ in *Lac*onia
ARIMinum in *Umb*ria
CORInth } in *Ach*aia
CENCHRææ
ELEUsis in *Meg*aris
ACERRæ in *Camp*ania
CHALCis in *Æt*olia
CORFINium } of the *Pe*-*l*igni
SULMO
MEMPHis in *Inf*erior *E*-gypt
THEBais in *Sup*er. *E*-gypt
MYCENæ in *Arg*ia
PATAra in *Lyc*ia
CHALYbes a people of *Gal*atia
NEMea in *Arg*ia
ADRAMYTtium in *Mys*ia
CNIdus in *Dor*is in *A*-sia
MEDIOLanum of the *In*-subres
SYRACUSæ in *Sic*ily
PATavia of the *Venet*i
ILium in *Phry*gia min*or*
CARBALIA in *Pamph*ylia
LYCAonia in *Cap*padocia
CYZICum in *Mys*ia
CUMA in *Æolis*
PIsidia part in *Pam*phylia, part in *G*-alatia
CURes of the *Sab*ini
LAVINium in *Lat*ium
ARDea of the *Rut*uli
Portus LABURNus in *Etru*-ria
TEGæa in *Arc*adia
LUcani } in *Oenot*ria
BRUTii
OENOTria part of *Græ*cia *M*-agna

* Why Philippi is said to be in Macedonia, Act. xvi. 12.—See Wells's Geography, chap. 15, and Pearce on the Epistles.

MESSAPIA part of *Græcia M*-agna
DAUNIA } parts of *Apu*-lia
PEUCETIA
ÆQUI } in *Lat*ium *no*-vum
HERNI
MUTINA of the *Boii*
RAVÊNNA in *Umb*ria
CALABRI } in *Messapia*
SALENTINI
VOLSCI } in *Lat*ium *N*-ovum
AUSONES

SABæi } in *Ar*abia *Fel*ix
SARACENI
NABATHæi in Arabia *Pe*-*t*ræa
NOMADES } in *Arab*ia *Des*erta
SCENITæ
TYRUS } in *Phœn*icia
SIDON
HIPPO in *Num*idia
PALMYRA in *Cœlo*-*S*-yria
NOLA in *Campa*nia
TARENTUM of the *Sal*en-tini

The Memorial Lines.

Abder*thra*, Bery*phœn*, Helico*ph*, Halicá*rdor*-*A*, Cher*bœ*,
Can*peucet*, Arb*ass*, Gran*ph*, Mæ*lydi*, Tá*glusit*, Is*cil*,
Pat*sporad*, Olym*elis*, Pyl*mes*, Marath*attica*, Del*pho*,
Samósa*com*, Dyrr*mac*, Thessal*ámphax*, Nic*bithy*, Nyss-*meg*,
Acró*cepir*, Cith*bœ*, Hym*at*, Ath*mac*, Ol-pel-O*thessal*,
Mant*arc*, Epidau*lac*, Pell*æmath*, Act-am*acarnan*,
Smyrn-eph*ion*, Perg*mys*, Laod*car*, Sard-thya-phil*lyd*,
Sard*thraci*, Chal*B*, Cirt*num*, Illib*hisp*-*bæt*, Anc*gala*,
Gang*paph*,
Sirm*pan*, Neocæs*cap*, Phars*thessa*, Philip*thraci*, Leuc*bœ*,
Clu*setru*, Bai*campa*, Tusc*lat*, Aquilei*car*, Edess*mes*,
Rheg*calabri*, Tom*œs*, Dam*cœl*-*S*, Colóss*phrygi*, Sag*tar*,
Brund*cala*, Com*S*, Dod*mol*, Spart*lac*, Antôch*pisid*,
Ant*vols*,
Amyc*lac*, Arim*umb*, Cori-cenc*hrach*, Eleu*smeg*, Acerr-*camp*,
Chalc*œt*, Corfini*pel*, Sulm*pel*, Memph*infer E*, Theb*súp E*,
Mycen*arg*, Pata*lyc*, Chaly*gal*, Nem*arg*, Adramyt*mys*,
Cnid*or A*, Mediol*ins*, Syracu*sici*, Pat*venet*, Il*phryn*,
Carbáli*pamph*, Lyca*cap*, Cyzi*mys*, Cum*œoli*, Pis*pam G*.
Cur*sab*, Lavini*lat*, Ard*rut*, Libur*netru*, Teg*arc*,
Luc-Brut*oenot*, Oenog*ræ M*, Messap*græ M*, Dauni-Peucé*tap*,

Æqu-hern*latN*, Muti*boi*, Rav*numb*, Cala-Sal*me*, Vol-Aus*latN*.
Sab-Sáracen*ára-fel*, Nabath*pet*, Nom-Scen*arab-des*.
Tyr-Sid*phœn*, Hippo*num*, Palm*CœlS*, Nol*campa*, Tarent*sal*.

TABLE XVIII.

The Correspondence of ancient and present Geography.

REGIONS AND PROVINCES.

Ancient.	Present.	Ancient	Present.
SARMatia [Sarm*po-ta-rus L*-	*Po*land, Great *Tar*tary, South part of *Rus*sia, *L*-ivonia	DACIA	*Mol*davia, *Wa*lachia, *T*ransilva.
		LIBURNia	*Cro*atia
CIMBricaChersonesus	*Jut*land	ILLYRICUM	*Cro*atia, *Dal*matia
*Insula CODA-Nonia	*Zeal*and	NORICUM	*Bav*aria, *Aus*tria
SCAndinavia or B-altia	*Nor*way and part of *Sw*eden	VINDilicia	*Sua*bia, *Ba*varia
SCYTHia As. and Sogdiana	Great *T*-artary	RHÆTIA	*Gris*ons, *Ty*rol and part of *It*aly
		HELvetii	*Swit*zerland
ACHaia or Hellas	*Liv*adia	ALLObroges	*Sav*oy
EPirus	*Chim*æra	COLCHis	*Ming*relia
THEssaly	*Jan*na	IBERia, ALBania	*Geor*gia
MŒSia superior	*Ser*via		
MŒSia inferior	*Bul*garia	GÆTULia	*Bildul*gerid
PELoponnesus	*Mor*ea	AFRICA propria	*Trip*oli and *Tun*is
THracia	*Rom*ania		
PANnonia	*Hung*ary	MAUrita-nia	*Fez* and *Mor*occo

* Zealand, Funen, and the adjoining isles had the common name of *Insulæ Æmodes*, and were esteemed isles of ancient Germany, being inhabited by the Teutoni, called also Codani.

Ancient.	Present.	Ancient.	Present.
Libya pr.	*Barca*	Numidia *nova*	*Bil*dulgerid
Numidia	*Alg*iers	Sogdiana	*Zagatay* or Usbec
Libya Deserta	*Zaara*	Iberia	*Spain*
Nigritæ	*Neg*roland	Cantabria	*Bis*cay
Taurica Chersonesus	The peninsula of little *Tart*ary	Albion	*Brit*ain
Garamantes	The Deserts of *Zaara*	Ligures	*Gen*oa
		Armenia maj.	*Turc*omania
		Armenia min.	*Ala*dulia
		Mesopotamia	*Di*arbec

The Memorial Lines.

Sarm*po-ta-rus L*, Cimb*jut*, Codan*zeal*, Sca-B*swe-no*, Scyth-sog-*T*,

Ach*livad*, Epi*chim*, Thes*sjan*, M*œssér-B*, Pelo*mor*, Th*rom*,

Pan*hung*, Daci*mol-wa-T*, Libur*cro*, Illyri*cro-dal*,

Nor*bavar-aus*, Vind*sua-B*, Rhæt*grís-tyr-it*, Helv*swit*, Alló*bsav*,

Colch*ming*, Iber-alb*geor*, Gætul*bild*, Afric*atrip-tun*,

Mau*fez-mor*, Liby*barc*, Numid*alg*, Lib-des*zara*, Nig*neg*,

Taur-chers*tart*, Gara*zaar*, Numi-nov*bil*, Sogd*zagat*, Ib*spain*,

Canta*bis* & Alb*brit*, Ligu*gen*, Arm*turc-ala*, Mesp*di*.

TABLE XIX.

Seas, Straits, Gulfs, Islands, Rivers, Towns.

Ancient.	Present.
Mare Hyrcanum, or Caspium	Sea of *Sala* or *Backu*
Pontus Euxinus	*Black* or Euxine Sea
Ægæn Sea	*Arch*ipelago
Propontis	Sea of *Marmo*ra
Palus Mæotis	Sea of *Azov*
Fretum Gaditanum	Strait of *Gib*raltar
Bosphorus Cimmerius	Strait of *Caffa*
Bosphorus Thracicus	Strait of *Const*antinople

Ancient.	Present.
HELLESPONtus	Strait of the *Dar*danells
Sinus ADRIATicus	Gulf of *Ven*ice
SINUS SALAMinius	Gulf of *Eng*ia
Sinus GANgeticus	Bay of *Beng*al
Sinus PERsicus	Gulf of *Bals*ora
Sinus CORINTHiacus	Gulf of *Lep*anto
Sinus ARABicus	*Red Se*a
FRETum Siculum	Straits of *Mess*ina
Sinus AMBracicus	Gulf of *Lart*a
Mare LIGusticum	Sea of *Geno*a
SINUS MAGnus	Bay of *Si*am
Mare TYRRhenum	Sea of *Tusc*any

Islands, Rivers, and Towns.

Ancient.	Present.	Ancient.	Present.
THULe	*Ice*land	PATmos	*Palm*osa
EBUsus	*Yv*ica	DIOSCORides	*Zoc*otra
BALLares	*Maj*orca / *Min*orca	LEMnos	*Stalim*ene
Ins. ÆOliæ	*Lipari* Isles	GADes	*Cad*iz
I.FORTunatæ	*Can*aries	CYRNus	*Cors ic*a
*HESPerides	C. *Verd*	SALAmis	*Col*uri
TAPROBana	*Ceylon*	CARPathus	*Scarp*anto
Cos	*Lango*	TRINACria	*Sicily*
CRETE	*Candy*	CYTHeron	*Cerigo*
CASSITerides	*Scilly* Isles	M. ÆTNA	*Gibel*
EUBœa vel CHALCis	*Neg*ropont	M. VESUVius	*Soma*
ITHAca	Ile di *Compare*	Lacus TRA-SIMenus	Lake of *Per*ugia
ÆGINa	*Eng*ia	RUBicon	*Fium*ecino
CERNe	†*Mada*gascar	PADUS or ERIDanus	*Po*
LEUCas	St. *Maura*		
LESBus	*Metelin*	ISTer	*Dan*ube

* Called also Gorgades.

† Madagascar is supposed by some to be the Menuthias of the ancients.

Ancient.	Present.	Ancient.	Present.
Bætis	*Guadal-quiver*	Rothomagia	*Rouen*
Tanais	*Don*	Tigurum	*Zurich*
Rha	*Volga*	Saguntum	*Morvedro*
Borysthenes	*Nieper*	Calpe	*Gib*raltar
Argentoratum	*Stras*burg	Colonia Agrippinæ	*Colog*ne
Moguntium	*Mentz*	Lugdunum	*Lyons*
Colonia Allobrogum	*Geneva*	Lugdunum Batavorum	*Leydén*

The Memorial Lines.

Casp*sala-back*, Eux*black*, Ægarch, Prop*mármo*, Mæot*zov*,
Fret-gádi*gib*, Cimm*caff*, Thraci*const*, Hellesp*dar*, Adrat*ven*,
Sin-salam*eng*, Gan*beng*, Pers*bals*, Si-corínth*lep*, Aráb*red-S*,
Fret-sicu*mess*, Amb*lart*, Ligu*gen*, Sin-mag*sla*, Tyrr*tusc*.

Thul*ice*, Ebûs*yv*, Bale*ma-M*, Æol*ipari*, For*tcan*,
Hesp*verd*, Taprob*ceyl*, Cos*lang*, Cret*candy*, Cassit*scill*,
Chalc-eub*neg*, Itha*comp*, Ægin*eng*, Cern*mada*, Leuc*maur*,
Lesb*metelin*, Pat*palm*, Dioscór*zoc*, Lem*stali*, Gad*cad*,
Cyrn*corsic*, Sala*col*, Carp*scarp*, Trinac*sici*, Cyth*cer*,
Ætna*gi*, Vesuv*som*, Trasi*per*, Rubi*ftum*, Pad-Erid*po*,
Ist*danu*, Bæt*gúadal*, Tana*don*, Rha*volga*, Boryst*niep*.

Argent*stras*, Mog*mentz*, Col-all*gen*, Róth*oro*, Tig*zur*,
Sag*morved*, Calp*gib*, Col-agrip*col*, Lug*lyo*, Lug-B*Leyd*.

N. B. It was thought needless to give more examples, especially of such as now have any likeness or affinity in their ancient names; as *Tagus* Taio, *Sequanus* Seyne, *Rhenus* Rhine, *Garumna* Garonne, *Zacynthus* Zante, *Melita* Malta, &c.

GEOGRAPHIA SACRA.

TABLE XX.

The Plantation of the Earth after the Flood.

And first, the several countries mentioned in Holy Scripture, and denominated from some of the posterity of SHEM, viz.

OPHIR, conjectured to be part of the East Indies, viz. Aurea *Cher*sonesus of the ancients [Oph*chers*]

HAVILAH, part of *Sus*iana and *Car*amania [Havi*sus-car*]

ELAM, part of *Sus*iana and *Pers*is [Ela*sus-pers.*]

ASSHUR, or Assyria properly so called, into which Nimrod is said to come and build Nineveh, &c. [Asshur]

ARAM, part of *Sy*ria and *Mes*opotamia [Arám*sy-mes*]

Land of Uz, Judæa *p*eræa and the adjoining parts of ARAbia *d*eserta and Petræa [Uzjú*p*-ara*d*]

LUD, or *Lyd*ia in Asia minor [Lud*lyd*]

The Memorial Lines.

Oph*chers*, Havi*sus-car*, Ela*sus-pers*, Arám*sy-mes*, Asshur,
Uzjú*p*-ara*d*, Lud*lyd* ————

Countries mentioned in the Scripture, and denominated from the posterity of JAPHET, (eldest son of Noah,) whose family is supposed to have peopled, besides a considerable part of Asia, all Europe.

MADai, called by heathen writers Media [Mad]

GOMER, thought to be *Alb*ania, on the Euxine Sea [Gomer*alb*]

TOGArmah, C*ap*padocia [Toga*cap*]

ASHKEnaz, *Ph*rygia [Ashke*ph*]

TUBal, *Iberi*a in Asia [Tub*ibéri*]

MESHECH, the country lying about the Montes

*Moschi*ci, between Colchis and Armenia major. [Meshéch*mosch*]

MAGOG, the parts of *Scythi*a adjoining to the plantations of *Mesh*ech, Tubal, and Gomer [Mag*scythi-mesh*]

JAVAN, ancient *Greece* [Jav*gree*]

ELISHAH, or the Isles of Elisha, the Isles of the *Arch*ipelago [Elísh*arch*]

KITTim understood of *Ita*ly, Dan. xi. 30. and of Macedonia in the book of Maccabees [Kitt*ita*]

TARSHish, by Josephus understood to be *Cil*icia, by others Old Spain, by others Carthage [Tarsh*cil*]

The Memorial Lines.

Mad, Gomer*alb*, Toga*cap*, Ashke*ph*, Tub*ibéri*, Meshéch*mosch*,
Mag*scythi-mesh*, Jav*gree*, Elísh*arch*, Kitt*ita*, Tarsh*cil*.

Countries mentioned in Scripture, denominated from the posterity of HAM (youngest son of Noah) whose family peopled Africa, with the adjoining parts of Asia.

Land of CUSH, (commonly rendered *Æthiop*ia,) [Cush*æthiop*] under which name seems to have been contained most of Arabia, distinguished into several parts, denominated from the posterity of Cush, as,

SHEBA, *Ara*bia *F*elix [Sheb*ara-F*]

HAvilah, part of *Ara*bia *d*eserta, next to Babylonia [Hav*ara-d*]

RAamath and DEDan, parts on the *Pe*rsian *Gu*lf [Ra-déd*pe-gu*]

MIZRaim, or *Æ*gypt [Mizr*Æ*]

LUB or Lybim, that is Libya properly so called [Lub]

PHUT, the more remote parts of *Lib*ya largely taken [Phut*lib*]

Land of CANAan lying between the river *Jor*dan and the *M*editerranean [Cána*jor-M*]

Land of HAMATH, north part of *Phœn*icia, and adjoining parts of *S*yria propria [Hamáth*phœn-S*]

ARVAD, or Arpad, or the Isle Aradus, lying overagainst *Hama*th [Arv*hama*]

Land of the PHIListines, *Pal*estine proper [Phil*pal*]

The Memorial Lines.

Cush*æthiop* [Sheb*ara-F*, Hav*ara-d*, Ra-déd*pe-gu*] Mizr*Æ*,
Lub, Phut*lib*, Cána*jor-M*, Hamáth*phœn-S*, Arv*hama*, Phil*pal*.

TABLE XXI.

Division of the Holy Land.

The kingdom of JUDAH contained the tribes of Judah and B-enjamin [Ju-B]

The kingdom of ISRAEL contained the tribes of

A-sher, NEphtali, ZEbulon, ISSachar, half of MAnasseh, DAN, E-phraim, SImeon	west of Jordan
REUBen, G-ad, the other half of M-anasseh	east of Jordan

The several nations were the CAnaanites, the GIRgashites, the HITtites, the HIvites, the AMorites, the JEbusites, and the P-erizzites.

The Memorial Line.

ISR=A-NeZe-M, IssMa-G, Dan-E-Réub, Si:
Ca-Girg-Hit-Hiv, Am-Je-P.

The Division of the Holy Land in the New Testament compared with the Divisions thereof among the twelve Tribes in the Old Testament.

GALLilee contained A-sher, NEphtali, Z-ebulon, and Issachar [GALL=A-Ne-ZIss]

SAMaria contained EPHraim, with the half of MAnasseh [SAM=ManEph]

Judæa contained DAN, parts of SImeon and Judah, with B-enjamin [JU=Dán Si-Ju-B]

IDumæa contained the south parts of SImeon and J-udah, and some part of the land of E-dom [IDU=Si-JE]

PERæa contained R-euben, GAd, and the other half of M-anasseh [PER=MGaR]

The Memorial Line.

GALL = A-NeZIss. SAM = ManEph. JU=DánSi-Ju-B. JD=Si-J E. PER=MGaR.

The land of EDOM bordered on the South of *Judæa* [EdómS*jud*]

The land of the MOAbites lay on the *N. E.* of *Edom* [Móa*NEed*]

The land of the AMmonites lay on the *N. E.* of *Moab* [Am*NEmoab*]

The ISHmaelites, MADianites, and AMalekites, lived promiscuously together, and therefore seem to be denoted by the common name of the Mingled People, or *Arab*ians, from ערב *miscuit*, from whence the Greek appellation of Ἄραψ, or Ἄραβες [Ish-mad-am*árab*]

The Memorial Line.

EdómS*jud*, Móa*NEed*, Am*NEmoab*, Ish-mad-am*árab*.

TABLE XXII.

The most remarkable Rivers, with the Places where they rise, and the Seas into which they fall.

IN EUROPE.

The VOLga, the greatest river in Europe, rises in *Rus*sia, and falls into the *Ca*spian sea [Vol*rus-ca*]

The DANube rises in *Suab*ia, and falls into the *Eux*ine sea [Dan*suab-eux*]

The RHINE rises in the country of the *Gris*ons, and falls into the *Ger*man *O*cean [Rhin*gris-gerO*]

The VISTula, or Wesel, rises in *Po*land, and falls into the *Ba*ltic [Vist*po-ba*]

The NIEper rises in *P*oland, and falls into the *Eux*ine sea [Nic*P-eux*]

The DWINA rises in *Rus*sia, and falls into the gulf of the Northern Ocean, called the *Whi*te sea [Dwin-*rus-whi*]

The TAIO in *Sp*ain falls into the *Atl*antic *Oc*ean [Tai*sp-atl-oc*]

The IBERUS, or Ebro, in Spain, The RHODANUS, or Rhone, in France [Ib-Rhod*med*] } fall into the *Med*iterranean

The ELBE in Germany falls into the *Ger*man *Oc*ean [Elb*ger-oc*]

The ODER in Germany falls into the *Balt*ic [Od-*balt*]

IN ASIA.

T-igris and EUPHrates rise in *Arm*enia major, and, having joined streams on the south-east of Mesopotamia, fall into the *Si*nus *P*ersicus [T-Eup*harm-siP*]

JORDAN rising in the border of *Neph*tali, and passing through the lake of Gennesaret, falls into the *Salt* sea [Jord*neph-salt*]

GANges in *I*ndia falls into the Bay of *Beng*al [Gán-*I-beng*]

IN AFRICA.

The NILe, running through the middle of Egypt, falls into the *Med*iterranean [Nil*medi*]

The SENegal runs through Negroland into the *At*lantic Ocean [Sén*at*]

The Memorial Lines.

Vol*rus-ca*, Dan*suab-eux*, Rhing*ris-gerO*, Vist*po-ba*, Nic*P-eux*.
Dwin*rus-whi*, Tai*sp-atl-oc*, Ib-Rhod*med*, Elb*ger-oc*, Od*balt*.
T-Eup*harm-siP*, Gán-*I-beng*, Jord*neph-salt*; Nil*medi*, Sén*at*.

ASTRONOMICA.

SECTION IV.

The Application of this Art to Astronomy and Chronology.

THE *technical* endings affixed to the beginnings of the names of the planets represent the number of miles of their diameters, distances, magnitudes, &c. according to the general key. Where the beginning of the word is *technical*, it is composed of the syllables or letters distinguished in the tables by small capitals.

TABLE I.

The D-iameters, &c. of the Planets in English Miles, according to Dr. Derham's Astro-theology.

	English Miles.
LUna [LuD*dapu*]	2175
MERcury [MercúD*epok*]	2748
MARs [MarD*okpu*]	4875
VEnus [VeD*oneip*]	4987
TERræ DIAmeter [TerDia*pousoi,k*]	7967,8
SAturn [SaD*ní-ola*]	93,451
JUpiter [JuD*aty-sli*]	130,653
SOLis DIameter [SolDi*ked-áfei*]	822,148

The D-iameters of their ORBits.

SATurn [D-orb-Sát*asob-les-teis*]	1641.526,386
JUpiter [JuRB*koúl-atoth*]	895.134,000
MARs [MaRB*ese-deid-naz*]	262.282,910
TERræ [D-orb-Ter*boid-úze-poul*]	172.102,795
MErcury [MeRB*sau-sebth*]	66.621,000

	English Miles.
VENUS [VeRB*bef-okoi-baf*]	124.487,114
LUNA [Dorb-lun*opbu-nyl*]	479,905
SATurni ANnuli DIam. or the diameter of Saturn's ring [Sat-anu-di*dáz-daul*]	210,265
——Ejusdem LATitudo, or the breadth of Saturn's ring [——lati*doú-eg*]	29,200
TERræ Superficies, or the superficial content of the earth [Ter-super*ann-fof-ezau*]	199.444,206
——Ejusdem DIAmeter [Dia-*pousoi,k*]	7967,8
——EjusdemOrbitæPERiMeter [Perm*ufy-skau-del*]	540.686,225

The Magnitudes or solid Contents in cubic Miles of the larger Planets.

MAGNITudo.

	Cubic Miles.
TERræ [Ter-magnit*éso-klaum*]	264,856.000,000
SOLIS [Mag-sólis*éoúz-noia*-mil-mil]	290,971.000,000.000,000
JOVIS [Mag-jo*vnez-záb-ezym*]	920.011,200,000,000
SATurni [Sat-magnit-*oép-dak & ízym*]	427.218,300.000,000

1. The AMbit or circumference.

	English Miles.
JOVIS [Am-jovis*ipoú-zot*]	379,043
Terræ [Am-T*el-yib*]	25,031
SOLIS [Am-sol*e-leid-koit*]	2.582,873

The Memorial Lines.

LuD*dapu*, MercúD*epok*, MarD*okpu*, TerDia*pousoi,k*,
JuD*aty,sli*, VeD*oneip*, SaD*ni-ola*, SolDi*ked-áfei*.

D-orb-Sá*tusob-les-teis*, JuRB*koúl-aloth*, MaRB*ese-deid-naz*,
D-orb-Ter*boid-áze-poul*, MeRB*sau-sebth*, VeRB*bef-okoí-baf*,
Sat-anu-di*dáz-daul*—lati*dóu-eg*, D-orb-luno*póu-nyl*,
Ter-super*ann-fof-ezau*—dia*pousoi,k*—Perm*ufy,skau-del*,
Ter-magni*téso-klaum*, Mag-sólis-*ëoúz-noia*,mil-mil,
Mag-Jov*nez-záb-ezym*, Sat-magnit-*cép-dak* & *ízym*,
Am-jovis*ipoú-zot*, Am-T*el-ytb*, Am-sole-*leid-koit*.

TABLE II.

*The Diameters, &c. of the Planets, according to Mr. Whiston.**

Luna [LuD*dedi*]	2223	English Miles of 5000 Paris feet.
Mercury [MércúD*epap*]	2717	
Mars [MarD*ekbau*]	2816	
Terra [Ter-Di*akéze*]	8202	
Jupiter [JuD*le-led*]	52,522	
Venus [VeD*onob*]	4941	
Saturn [SaD*ot-nel*]	43,925	
Sol [Sol-D*ifouf-ázy*]	494,100	

2. † Their Distances from the sun.

	English Miles.
Saturn [Distat-Sat*láï-iozth*]	513.540,000
Mars [Dist-Má*rke-dodth*]	82.242,000
Mercury [Dist-Mer*ez-ouleth*]	20,952,000
Jupiter [Dist-Jupi*deiz-uketh*]	280,582,000

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* Theory of the Earth, page 31, &c.

† The distances of the planets from the sun, according to Dr. Derham, are as follow:

Saturn [Dist-Sat*kez-paút-ani*]	820.763,193
Mars [Dist-Ma*rbib-bob-olu*]	131,141,455

		English Miles.
Terra	[Dis-Ter*lom*]	54.000.000
Venus	[Dista-V*etou-znauth*)	39.096,000

3. The Quantity of matter in the heavenly bodies is in the proportions following:

Terra	[Quan-ter*a*]	00001
Luna	[Quan-Lun,*res*]	00000$\frac{1}{26}$
Jupiter	[Quan-Jup*sy*]	00060
Saturn	[Quan-Satur*ek,ro*]	00028$\frac{1}{4}$
Sol	[Quan-Soli*sau-sny*]	66,690

4. The weight (Pondus) of bodies on the surface of

Saturn	[Pon-Sátur*uts*]	536
Luna	[P-Lun*siz*]	630
Jupiter	[Pon-Ju*kzo,re*]	804$\frac{1}{2}$
Terra	[Pon-Ter*aduk,re*]	1258$\frac{1}{2}$
Sol	[Pon-Sol*azth*]	10,000

5. The Densities of the same.

Sol	[Den-Sol*ag*]	100
Luna	[Den-Lun*oig*]	700
Terra	[Den-Ter*teip*]	387
Saturn	[Den-Sa*sy*]	60
Jupiter	[Den-Ju*ps*]	76

N. B. Mr. Whiston supposes the sun's parallax to be 32″. Dr. Derham (with Cassini) 9 sec. and half.

The Memorial Lines.

1. Lu*dedi*, MércùD*epap*, MarD*ekbau*, Ter-Dia*kéze*, JuD*le-led*, VeD*onob*, SaD*ot-nel*, Sol-Di*fouf-ázy*.

Mercury	[Dist-Mer*it-ibz-ug*]	33.310,500
Jupiter	[Dist-Jupi*fop-usoith*]	447.567,000
Terra	[Dist-Ter*kau-zub-touk*]	86.051,398
Venus	[Dist-Ve*se-dot-lup*]	62,243,557

2. Distat-Satáïl-*lozth*, Dist-Már*ke-dodth*, Dist-merez-*ouleth*,
Dist-Jupi*deiz-uketh*, Dis-Ter*lom*, Dista-V*etou-znauth*.

3. Quan-Ter*a*, Quan-Lun,*res*, Quan-Jup*sy*, Quan-Satur*ek-ro*,
Quan-Soli*sau-sny*.

4. Pon-Sátur*uts*, P-Lun*siz*, Pon-Ju*kzo*,*re*, Pon-ter-*aduk-re*,
Pon-Sol*azth*.

5. Den-Sol*ag*., Den-Lun*oig*, Den-Ter*teip*. Den-Sa*sy*, Den-J*ups*.

TABLE III.

The periodical Times of the R-evolutions of each Planet about the Sun are as follow:

Mercury in	88	Days or about	3 months.
Venus	224		7 months ½.
Mars	287		2 years.
Jupiter	4333		12 years.
Saturn	10759		30 years.

MercR*eik*, SatR*azpun*, MarsR*aukoi*, VenR*edo*, Jup-R*ottt*,
Merc-Revo-men*t*, VeR-me*p-h*, MarsRan*d*, JupRan*be*, SatRan*ty*.

N.B. Men *vel* me *Mensibus*, an Annis, *h* half.

The Distance of the earth from the sun being divided into 10 parts, or Decimals, the distance of Mercury from the sun will be as 4 of them, of Venus as 6, of Mars as 15, of Jupiter as 52, of Saturn as 95.

Ter-Dist*az*, Mér*o*, Ven*s*, Mars*al*, Jupiter*le*,Saturn*oul*.

The *Sun* is distant from the earth 21600 SEMI-diameters of the earth=86.051,398 miles.

The Moon 60½ semidiameters=239,952 miles.

Dist-Sél-somi*da-syz*=*kau-zub-touk* ——

—— Distat-Lun-sem*sy,ro*=*din-nud*.

The motion of the *Sun* round its aXis is performed in 25 days and 6 hours [SólX*du,ro*] The motion of Jupiter round its aXis is performed in 9 hours 56 minutes [JuX*n,us*]; that of the earth in 24 hours: so that the M-otion of the sun round its axis is at the rate of 4262 miles an hour [SolM*fese*]; the M-otion of Jupiter round its axis 28159 milès an hour [JuM*teibun*]; the M-otion of the *Earth* round its axis is 1043 miles an hour [TerM*ázfi*]

SolM*fese*, JuM*teibun*, TerM*ázfi*, SólX*du,ro*, JuX*n-us*.

The apparent diameter of the sun in summer (ÆSTATE Solis DIAMETER) is 31 M-inutes 40 S-econds [Æstat-SoDi-MÍ*b soz*]

In winter (HYEME) 42 M-inutes 47 S-econds [—— Hye.MÍ*d-sop*]

If the sun is supposed to go round the earth, its diurnal motion will be 22.528,366 M-iles in an HOur [Sol-M-ho*de-lek-taus*]

Æstat-So-Di-MÍ*b-soz* —— Hye-MÍ*d-sop*; Sol-M-ho*de-lek-taus*.

The three COMETS, whose periods were thought to have been discovered. Derham's Astro-Theology, p. 56.

That which appeared	1682	calculated to perform its revolution in	75	and to appear again	1758
	1661		129		1789
	1680		575		2225

Com*ske-pu súub-adou sky-loil: puk pein & cëlu.*

The Memorial Lines.

MercR*eik*, SatR*azpun*, MarsR*aukoi*, VenR*edo*, Jup-R*ott*,

Merc-Revo-ment, VeR-mep-h, MarsRand, JupRan-be, SatRanty.
Ter-Distaz, Méro, Vens, Marsal, Jupiterle, Saturnoul.
Dist-Sol-sémida-syz = kau-zub-touk, Lunsy,ro = din-nud.
SolMfese, JuMteibun, TerMázfi, SólXdu,ro,JuXn,us.
Æstat-So-Di-mìb-soz —— Hye-mìd-sop; Sol-m-hode-lek-taus.
Comske-pu saúb-adou sky-loil: puk pein & eëlu.

TABLE IV.

Chronological Notes.

	d.	h.	m.	s.	th.
Solar month (Mensis Solaris) consists of [Men-Solar*ty-by-dou*]	30	10	29	00	0
Lunar Synodal month [Synod*én-be-ff-t*]	29	12	44	03	0
Lunar Periodical month [Men-perid*oi-p-ot*]	27	07	43	00	0
The cycle of the moon less [Cyclus Lunaris minor) than 19 Julian years [Cyc-Lu-min-h*a-doi-ta-ll*]	00	01	27	31	55
(This difference arises to a whole day, and consequently throws the new moons back a whole day in 312 years (Annis) [Ann-*tad*])					
The tropical or natural solar year less than the Julian (Annus Tropicus minorJuliano) eleven M-inutes; [Trop-min-juli-m*ab*] and consequently the equinoxes happen a day sooner in 130 years [*biz*]	00	00	11	00	0
The lunar year (Lunaris Annus) [Lun-án*ilo*-h*ei*-m*ok*]	354	08	48	00	0

	d.	h.	m.	s.	th.
The EPACT [Epacaz-*da-b*]	10	21	01	00	0
The solar year (SOLARIS ANNUS) [Sól-an*isú-l-on*]	365	05	49	00	0
Between the VERNal and AUTUMNal equinox [Vern-aut*aks-hak-miz*]	186	18	30	00	0
Between the AUTUMNal and VERNal equinox [Autum-Vern*boik-ab-an*]	178	11	19	00	0

The METONIC period was invented by Meto, in the year before Christ 430, consisting of 19 years [Met*fiz-bou*]

The CALIPPIC period was invented by Calippus, in the year before Christ 330, consisting of 76 years [Calip*itz-ois*]

The DIONYSIAN period was invented by Dionysius Exiguus, Ann. Dom. 527, consisting of 532 years [Dio*lep-lid*]

The JULIAN period was invented by Joseph SCALIGER, consisting of 7980 years [Júl-scali*póuky*]

The vulgar year of Christ was in the fourth of the indiction, the tenth of the cycle of the sun, the second of the cycle of the moon.

Indic. erat quarto, decimo Sol, Luna secundo.

To find the Year of the Julian Period, the Years of the other Cycles being given.

Multiply the cycle of the Sun into 4845 [Sol in *okol*]
——— the cycle of the Moon into 4200 [Lun*feg*]
——— the INDICTION into 6916 [Indic*snas*]
Divide the PRODUCT by 7980 [Dív-produ*pouky*]
The remainder is the year.

The Sunday letters which begin every month are frequently known by the two English verses,
At Dover Dwells George Brown, &c.

2

But perhaps they may be more readily remembered by the following line, which lays the reader under no necessity of counting the order of the words before he can tell which month they answer to, every month ending with the letter which belongs to the first day of it.

J*a* F*d* Má*d* Apri*g* May*b* Jun*e* Jul*g* Aú*c* Se*f* Oct*a* Nové*d* De*f*.

MARch, MAy, JULy, OCtober, have NOnes on the 7 day, and the IDES on 15. [Mar-má-jul-oc =Nop-Id*al*] The rest (CÆTeri) on the 5 and 13. [Cæt*l-at*]

APril, JUNe, SEptember, and NOvember, have thirty (TRIGINTA) days [Ap-jún-se-no=trigint]

Mar-má-jul-oc = No*p*-Id*al*, Cæt*l-at*: Ap-jún-se-no = trigint.

In a year (ANNO) are 365 days, 8765 HOURS, 525,949 MINutes, 31.556,937 SEConds.

An = di*taul* = Hor*eipaul* = Min*lel-non* = Sec*ta-lus-outoi*.

The motion of the firmament, or fixed stars, is 50″ in a year, or a degree in 72 years. According to which rate the motion (called the PLATOnic year) is accomplished in 25,920 years [An-Plato =*dunez*]

The twelve signs: ARies, TAurus, GEmini, CANcer, LEO, VIRgo, LIBra, SCORpio, SAGITtarius, CAPRIcorn, AQUARius, PISces.

Ar-ta-ge, Can-leo-vir, Lib-scór-sagi, Capric-aquár-pis.

The Memorial Lines.

Men-Solar*ty-by-dou*, Synod*én-be-ff-t*, Men-peri*doi-p-ot*,

Cyc-Lu-min-h*a-doi-ta-ll* (Ann*tad*) Trop-min-juli-m*ab*. (*biz.*)

Lun-án*ilo*-*hei*-mo*k*, Epac*az*-*da*-*b*, Sól-an*isú*-*l*-*on*;
Vern-au*taks*-*hak*-m*iz*, Autum-vern*boík*-*ab*-*an*. ———
Met*fiz*-*bou*, Cali*pitz*-*ois*, Dio*lep*-*tid*, Júl-scali*póuky*.
Indic. erat quarto, decimo Sol, Luna secundo.
Sol in *okol*, Lun*feg*, Indic*snas*, Dív-produ*pouky*.
Ja F*d* Má*d* Apri*g* May*b* June Ju*lg* Aú*c* Se*f* Oct*a* Nóv*éd* De*f*.

Mar-má-jul-oc = No*p*-Id*al*, Cæt*l*-*at*: Ap-jún-se-no = trigint.

An = di*taul* = Hor*eipaul* = Min*lel*-*non* = Sec*ta*-*lus*-*outoi*.

An-Plato = *dunez*.

Ar-ta-ge, Can-leo-vir, Lib-scór-sagi, Capric-aquár-pis.



PONDERA, NUMMI, MENSURÆ.

SECTION V.

The Application of this Art to Coins, Weights, and Measures.

THE beginning of the words is composed of the initial letters: thus At-ta stands for ATtic TAlent; HeT for HEbrew T-alent; AD for A-ttic D-rachm; AlD for ALexandrian D-rachm; HeTO for Hebrew talent of gold (HeT standing for HEbrew T-alent, as before, and O for *Or*, or Gold); RoL for ROman L-ibra, Den for DEnarius, Shek for SHEKel, GreF for GREcian F-oot, HeC for HEbrew C-ubit, RoFsq for ROman F-oot Square, &c.

The *italic* endings of the words represent the number of pounds, shillings, and pence, which are separated from each other by *hyphens*, or else signified by the Roman letters l. s. d. The double lines denote equality: thus AM=drag=*t-ei-n*, signifies that an A-ttic M-ina, which is equal to 100 DRachms, was 3 pounds 8 shillings and 9 pence. The letters, though separated, are to be pronounced together; as *t-ei-n tein*. The reader is to be reminded here that *re* signifies $\frac{1}{2}$, *ro* $\frac{1}{4}$, &c. according to the general rule, page 4. But *note*, that instead of the fraction *re*, the letter *h* is sometimes used for HALF, as *oikbe-h*= $7812\frac{1}{2}$ *sc.* 7812 pounds 10 shillings.

TABLE I.

*Hebrew, Attic, Babylonish, Alexandrian, and Roman Money.**

	l.	s.	d.
An Attic Talent=60 M-inas [Atta=mauz=ezáu-su]	206	05	0
An A-ttic M-ina=100 Drachms [Am=drag=t-ei n]	03	08	9
An Hebrew T-alent=50 Minas=3000 Shekels [Hét=mily=shíth=fuz]	450	00	0
An Hebrew M-ina=60 Shekels [Hem=shauz=lou]	09	00	0
A Babylonian T-alent (Bat=eóz-be-s]	240	12	6
A Babylonian T-alent of Gold [Ba-tOteilz]	3850	00	0
An A-ttic T-alent of Gold [AtO=tig]	3300	00	0
An Hebrew T-alent of Gold [HotO=peg]	7200	00	0
An A-ttic D-rachm [Ad=dei,ro]	00	00	8¼
An Hebrew D-rachm [Hed=dou]	00	00	9
A ROman L-ibra=96 D-enarii [Rol=dous=li]	03	00	0
†A Roman Talent=72 Libræ=[Róm-ta=liboid=das]	216	00	0
An Alexandrian Drachm [Al-drach=sa-ds]		01	6
An Italic Mina [Ita-mí=l/]	3	00	0
A Shekel=2 Bekas [Shek=Béd=si]		03	0
A ROman D-enarius=4 Sesterces [Ród=sesc=doi,re]		00	7½

* See the Preface to Dr. Prideaux's Connection.

† Others make a Roman Talent=6000 D-enarii=24 Sestertiums=187l. 10s. [Tal=dauth=sésdo=laeip-h]

A Sesterce, ¼ of a denarius, *sc.* LLS. (*vulgo* HS.) *duo asses cum semisse* (Ses=*da-fi-re*] a penny three farthings and half a farthing	00 1¼q
Sestertium, or 1000 S-esterces *[*Sath=p-as-t*]	7 16 3
Decem sestertium, 10000 Sesterces [Ses*byth*=*pei-d-s*]	78 02 6
Decies sestertium, or 1,000,000 Sesterces [Sester*am*=*oikbe-h*]	7812 10 0

Denarius (7d½)= 2 Victoriati [=Vi*d*]
4 Sestertii [=Se*f*]
6 Oboli [=Ob*s*]
10 Libellæ [=Líb*az*]
20 Sembellæ [=Sem*dy*]
40 Ternuncii [=Terun*fy*]

Den (d*oi*,*re*)=Vi*d*=Se*f*=Ob*s*=Líb*az*=Sem*dy*=Terun*fy*.

The Memorial Lines.

Atta=mau*z*=*ezáu-su*, Am = dr*ag* = *l-ei-n*, Hét =mi*ly*=sh*íth*=*fuz*.
Hem = sh*auz* = l*ou*, Bat = *sóz-be-s*, BatO=*teilz*, AtO='*ig*, HetO=*pegque*.
Ad = d*ei*,*ro*, Hed=d*ou*, Rol=d*ous*=l*i*, Róm.ta =libo*id-das*.
Al-drach=s*a*-d*s*, Ita-mí=l*t*, Shek=Bé*d*=s*i*, Ród =Ses*o*=d*oi*,*re*.
Ses=l*a*,fi,*re*,Sa*th*=*p-as-t*,Ses*byth*=*pei-d-s*, Sester*am* =*oikbe-h*.
Den (d*oi*,*re*)=Vi*d*=Se*f*=Ob*s*=Líb*az*=Sem*dy*=Terun*fy*.

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* Dr. Arbuthnot makes the Sesterce a penny three farthings and three fourths of a farthing; [Ses=*da-fi*,*tro*] according to which a sestertium will be 8l. 1s. 5 d ½ *Sath*=*k-a-l-h*] Decies Sestertium, or 1,000,000 of sesterces=8072l. 18s. 4d. [Sest*am*=*hype-sak-do*]
Tal=*oauth*=Ses*do*=l*acip-h*, *Sath*=*k-a-l-h*, Sestám=*hype-sak-do*.

TABLE II.

Measures of Length.

The method observed in the following tables is, first to give the ancient measures, weights, &c. in the proportions which they bear to each other; and then the proportion which they bear to those of our own country. To which I subjoin some tables, by which the reader will be enabled to make any calculations of this kind with the utmost ease and readiness.

English Measures of Length.

English MILE = {
8 FURlongs [=Fur*k*]
320 P-oles [=P*idz*]
1760 YARds [=Yar*apauz*]
5280 F-eet [=F*udeiz*]
63360 INches [In*autisy*]
190080 B-arley corns [B*anzyeiz*]

Mil = Fur*k* = P*idz*=Yar*apauz*=F*udeiz*=In*autisy*= B*anzyeiz*.

		F-eet.	
MILE [=8 furlongs]	=	5280	Mil=F*udeiz*
FURlong [=40 poles]	=	660	Fur=F*sauz*
POLE [=5½ yards]	=	16½	Pol=F*as,re*
CUBit [=2 spans]	=	1½	Cub=F*a,re*
FAThom [=2 yards]	=	6	Fat=F*au*

Mil=F*udeiz*, Fur=F*sauz*, Pol=F*as,re*, Cub=F*a,re*, Fat=F*au*.

Grecian Measures of Length.

Μίλ-ιον = {
8 Στά-δια [=Στά*k*]
800 Ὀργ-υιαὶ [=Ὀρ*eig*]
4800 Πόδ-ες [=Πόδ*feig*]

Πῆχ-υς = 2 Σπιθαμ-αὶ.

Πȣ̃ς = 4 Δῶρ-α = 16 Δάκτ-υλοι.

Μίλ = Στάk = 'Ορeig = Ποδfeig. Πῆχ=Σπιθαμe. Πȣ̃ς =Δῶρυ=Δακlus.

	Ποδ-ες	
Μίλ-ιον (=8 Στάδια)	4800	Μίλ=Ποδfeig.
*Στάδι-ον (=100 Ὀργυιαὶ)	600	Στάδι=Παug.
Ὀργ-υιὰ (= 4 Πήχεις)	6	Ὀργ=Παu.

		† Δάκ-τυλοι	
Πῆχ-υς (=2 Σπιθαμαί)	=	24	Πῆχ=Δef
Πυγὼν (= ! Λίχαι)	=	20	Πυγὼν=Δez
Πυγ-μὴ = 1½ Σπιθαμὴ)	=	18	Πυγ=Δak
‡Πȣ̃ς (=4 Δῶρα)	=	16	Πȣ̃ς=Δάκlus
Σπιθα-μὴ (=3 Δῶρα)	=	12	Σπιθα=Δad
Ὀρθ όδωρον	=	11	Ὀρθ=Δab
Λίχ-ας	=	10	Λίχ=Δακby
§Δῶ ρον	=	4	Δῶ=Δάκlo

Στάδι=Παug & Ὀργ=Παu: Πῆχ=Δef, Πυγ=Δakque Πυγὼν=Δez,
Πȣ̃ς = Δάκlus, Σπιθα=Δad, Ὀρθ=Δab, Λίχ=Δακby, Δῶ=Δάκlo.

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* Called also Αὐλὸς, from whence came Δίαυλος, a space of two stadia.

† The Grecian measures, from which the Romans borrowed theirs, were commonly taken from the members of a human body. Δάκτυλος, a finger's breadth; Δῶρον, a hand's breadth; or four fingers; Λίχας, from the thumb to the middle finger; Ὀρθόδωρον, the length of the hand from the upper part to the extremity of the longest finger; Σπιθαμὴ, the length of the hand extended, between the thumb and the little finger; Πȣ̃ς the foot = 4 hands breadth; Πῆχυς from the elbow to the extremity of the fingers; Πυγὼν, from the elbow to the second joint of the fingers, or a cubit with the fingers inflected; Πυγμὴ from the elbow, with the fingers quite clasped; Ὀργυιὰ, from the extremity of one middle finger to the extremity of the other, the arms being extended.

‡ The Grecian foot was also, like the Roman, divided into 12 Οὐγγίαι or inches.

§ Δῶρον, the palm, so called, because gifts are made with the hand: called also Δοχμὴ, from δέχομαι, to receive, Δακτυλοδόχμη & Παλαιςή.

Roman Measures of Length.

	8 STADIA [=Sta*k*]	
MILLIARE =	1000 P-assus [=P*ath*]	
	4000 PALMIPEDES [=Palmp*oth*]	
	5000 P-edes [=P*uth*]	
	4 PALMI MINORES [=Pal-min*o*]	
PES =	12 UNCIÆ [=Unc*ad*]	
	16 DIGITI [=Digit*as*]	

Mil = Sta*k* = P*ath*=Palmp*oth*. Pes = Pal-min*o*= Digit*as*=Unc*ad*.

	P-edes.	
MILLIARE (=8 stadia) =	5000	Mil-rom=P*uth*
STADIUM (= 125 passus) =	625	Stadi=P*sel*
PASSUS (=4 palmipedes) =	5	Pass=P*u*
	DIGITI*	
†CUBITUS (=1½ pes) =	24	Cub=digit*ef*
PALMIPES (=5 palmi) =	20	Palmíp=D*ez*
§PES (=4 palmi) =	16	Pes=D*as*
‡PALMUS (=3 unciæ) =	4	Palm=D*o*
**UNCIA =	1⅓	Un=D*a,re*

Mil-rom=P*uth*,Stadi=P*sel*, Pass=P*u* : Cub=Digit*ef*, Palmíp=
D*ez*,Pes=D*as*, Palm=D*o*, Un-D*a,re* ——

Jewish Measures of Length.

MILE =	2 SABATHDAYS JOURNIE =[=Sábat*e*]	
	10 STADIA [=St*az*]	
	4000 CUBITS [= Cubit*oth*]	
CUBIT =	2 SPANS the greater	[Spanë-*i*]
	3 SPANS the less	
	6 PALMS [=Palm*au*]	
	24 DIGITS [=Digit*ef*]	

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* Some divide the *Digitus* into 4 *Grana*

† Some use *Ulna* for *Cubitus* Pliny takes them for different measures, his *Ulna* answers to the Greek 'Οργυιὰ

§ *Pes* was divided, as the *As*, into 12 parts, hence *Dextans* = [illegible] inches, *Dodrans* = 9 inches, &c.

‡ Called *Palmus minor*, to distinguish it from a greater, which some authors make equal to 12 digits.

** Called sometimes *Pollex*,

Cub=Spand-i=Palmau=Digitef, Mil=Sábate=Staz =Coth.

		Cubits	
Eastern Mile (=10 stadia)		4000	Mil=Coth
Stadium	=	400	Stad=Cubitog
*Schœnus or Chebal	=	80	Schœn=eiz
Arabian Pole	=	8	Ara-Pol=k
Ezekiel's Reed, or *Kaneh*	=	6	Eze-Ree=s
Fathom	=	4	Fath=o
		Digits	
Cubit, or *Ammah*	=	24	Cub=Digitef
†Span, or *Zereth*	=	12	Span=Dad
Palm, or *Tophach*	=	4	Palm=Do

——————— Mil=Coth, Stad=Cubitog, Schœn=eiz, Ara-Pol=k, Eze-Ree=s, Fath=o : Span=Dad, Cub=Digitef, Palm=Do : Para=milt ———

N. B. The Parasang is a Persian measure, consisting of 30 stadia=3 Mile [Para=milt]

A day's journey is an uncertain measure, but amongst the Jews was generally reckoned 24 miles.

The Memorial Lines.

Mil = Furk = Pidz=Yarapauz=Fudeiz=Inautisy= Banzyeiz.

Mil=Fudeiz, Fur=Fsauz, Pol=Fas,re,Cub=Fa,re, Fat=Fau.

Μίλ=Στάk = 'Οργig = Πόδfeig, Πῆχ=Σπιθαμα, Πὒς =Δῶρυ=Δάκλας.

Στάδι=Πaug & 'Οργ=Πau, Πῆχ=Δef, Πυγ=Δakque Πυγών=Δez.

Πὒς=Δάκλας, Σπιθα=Δad, 'Ορθ=Δab, Λίχ=Δaκby, Δῶ=Δάκλο.

Mil =Stak = Path=Palmpoth. Pes=Pal-mino = Digitas=Uncad.

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* Called also *Pathil.*

† There is likewise another word, *Gomed,* which the LXX render Σπιθαμή.

Mil-rom=P*uth*, Stad=P*sel*, Pass=P*u*: Cu*l*=Digi*tef*, Palmi*p*=
Dez, Pes=D*as*, Palm=D*o*, Un=D*a,re* — ——
Cu*l*=Span*č-t*=Palm*au*=Digi*tef*. Mil=Sábat*t*=Sta*z* =Co*th*.
—————————— Mi*l*=Co*th*,
Stad=Cubit*og*, Schœn=*eiz*, Ara-Pol=*k*, Eze-Rec=*s*, Fath= : Span=D*ad*,
Cu*l*=Digi*tef*, Palm=D*o* : Para-mil*t* ——

TABLE III.

The Proportion of the foregoing Measures to English Measures.

	Inches.	Decimals.
GRecian D-igit [GréD= ,*pulv*]	0	,75546875
ROman D-igit [RoD= ,*peldu*]	0	,72525
*JEwish D-igit [JewD= ,*aad*]	0	,912
	Feet.	**Decimals.**
GRecian F-oot [GreF=*a,zypdou*]	1	,00729⅛
ROman F-oot [RoF= ,*nauy*]	0	,967
HEbrew C-ubit [HeC=*a,kef*]	1	,824
GRecian C-ubit [GreC=*a,laznil*]	1	,510935
ROman C-ubit [RoC=*b,olzu*]	1	,4505
	Inches.	**Decimals.**
GRecian FOot [Grec-Fo=*be,zeipu*]	12	,0875
ROman F-oot [RomF=*ab,syf*]	11	,604
HEbrew C-ubit [HeC=*da-keik*]	21	,888
GRecian C-ubit [GreC=*bei,bib*]	18	,13125
ROman C-ubit [RoC=*boi.fys*]	17	,406
	Eng. Miles.	**Decimals.**
†GREcian M-ile [GreM= .*pautzoun*]	0	,763099

* In reducing the Jewish measures, I have followed Bishop Cumberland, who makes the cubit=21,888 inches. Dr. Arbuthnot thinks it plain that there were two sorts of cubits, the sacred one and the profane or common one; the former exceeding the latter by a hand's breadth, or three inches. The profane cubit he makes equal to 17 ,82 inches; the sacred one=20 ,79 inches.

† Dr. Arbuthnot makes the Grecian mile equal to 805,8⅘ English paces; which, agreeably to my own method, I have here

	Eng. Miles.	Decimals.
ROman MIle [RomM= ,nalpan]	0	,915719
HEbrew MIle [Heb-mil=a,teiboi]	1	,3817
GREcian STadium [Gre-St= ,zoutleip]	0	,093587½
ROman STadium [Ro-St= ,bafos]		,114465
HEbrew STadium [He-St= ,bik]		,13817

The Memorial Lines.

GreD= ,pulo, RoD= ,peldu, JewD= ,nad: RoF = ,naup, GreF=a,zypdou,

RoC=b,olzu, HeC=a,kef, Grec=a,laznil: Grec-Fo=be,zeipu,

RomF=ab,syf: GreM= ,pautz, RomM= ,nalpan, Heb-mil=a,teiboi:

HeC=da,keik, RoC=boi,fys, GreC=bei,bib; Ro-St = ,bafos, He-St=bik,

Gre-St= zoutleip ——

TABLE IV.

Superficial Measures.

	Sq. F-eet.	Dec.
English ACre [Ac=,Fotlauz]	43560	,00
R-ood (=40 poles) [R=azkouz]	10890	,00
POLe [Pol=doid,el]	272	,25
	Squ. YArds.	
ACre = [Ac=Yarokoz]	4840	
	Sq. F-eet.	Decim.
ROman Square F-oot [RoFq=nil]	0	,935089
GRecian Sq. F-oot [GreFq=á,zafauts]	1	,0146365
HEbrew Squ. C-ubit [HeCq=i,tésnois]	3	,326976

JUGerum = R-oods 2. P-oles 18. F-eet 250 ,05 [Jug=Ré-Pak-Fely ,zu]

Πλέϑ-ρον=P-oles 36. F-eet 245. [Πλέϑ=Pie-Fdol]

reduced to 0 ,763099 of a mile. Yet, according to his own computation, which makes 'Οργυιὰ = 6 feet 0,525 inches, or, which is the same, 6,04375 feet, Στάδιον (=100 'Οργυιαὶ) will be 604,375 feet, and Μίλιον (=8 Στάδια) will be 4835 feet, exactly equal to the number of English feet in a Roman mile=0,915719 of a mile.

*Egyptian Ἄρȣ-ρα=R-oods 3. P-oles 2. F-eet 55¾
[Ἄρȣ=Ri-Pe-Ful,ro]

		Eng. Acres. Decim.
Jugerum [Jug=, sakdo]		0 ,618240
Πλέθ-ρον [Πλέθ= ,etyst]		0 ,230632
Egyptian Ἄρȣρ-α [Ἄρȣρ= ,oist]		0 ,763768

		Greek Sq. Feet.		Eng. Sq. F. Decim.
Πλέθρον	=	10000	=	10146 ,3650
Ἄρȣρα ½ Πλέθρον		5000	=	5073 ,1825
Egyptian Ἄρȣρα	=	10000 Squ. Cub.	=	33269 ,7600

	Rom. Squ. Feet.	Sq. F.	Decim.
†Actus minimus 120+ 40=	4800=	4488	,4272
Actus Quadratus 120+ 120=	14400=	13465	,2816
Clima 60+60 =	3600=	3366	,3204
Versus 100+100 =	10000=	9350	,8900
‡Jugerum=2 ActusQuad. =	28800=	26930	,5632
Uncia $\frac{1}{12}$ of the Jugerum =	2400=	2244	,2136

The Memorial Lines.

Ac=sF*otlauz*, R=*azkouz*, Pol=*doid ,el* : Ac=Yar-*okoz*que:
GreF*q*=*á,zafauts*,RoF*q*= ,*nil*, HeC*q*=*i ,tésnois*——.
Jug=R*é*-P*ak*-F*ely ,zu* : Πλέθ=P*ís*-F*dol* : Ἄρȣ=R*i*-P*e*-F*ul,ro*.
Jug= ,*sakdo*, Πλέθ= ,*etyst*, Ἄρȣρ= ,*oist* ——

TABLE V.

Measures of Capacity.

English Wine Measure.

Tun =	2 B-uts	[=B*e*]
	3 Puncheons	[=Pu*t*]
	4 HOgsheads	[=Ho*f*]
	6 Tierces	[Tier*s*]

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* The Grecian Ἄρȣρα was ½ of the Πλέθρον.

† *Actus* is the length of one furrow, so far as a plough goes before it turns, in length 120 feet.

‡ The *Jugerum* was divided, like the *As*, into 12 parts.

Tun =	8	Barrels	[=Bark]
	14	Rundlets	[Rof]
	252	Gallons	[Galdud]
	2016	Pints	[Pidzas]
	58212	Solid Inches	[Inukdad]

Tun=Be=Put=Hof=Tiers=Bark=Raf=Galdud =Pidzas=Inukdad.

English Corn Measure.

Quarter=Bushels 8 [Quar=Busk]

Bushel =	4	Pecks	[=Peco]
	8	Gallons	[=Gälk]
	64	Pints	[=Pinso]

Bush=Peco=Galk=Pinso: Quar=Busk.

		Cubic Inches.
Gallon of Wine	[GállW=eta]	231
*Gallon of Corn	[GalC=doid ,ro]	272¼
Pint dry measure	[Pin-dr=if ,rid]	$34\frac{1}{32}$
Pint liquid measure	[Pin-liquid=ek ,prei]	$28\frac{7}{8}$

Hogshead =	63	Gallons	[=Galsi]
	504	Pints	[=Pinúzo]

GállW=eta, GalC=doid ,ro, Pin-dr=if ,rid, Pin-liquid=ek ,prei.
Hog=Galsi-Pinúzo.

Grecian Measures of Capacity.

Μετρητὴς =	12	Χ-όες	[=Χúd]
	72	Ξ-έϛαι	[=Ξoil]
	144	Κοτυλ-αι	[=Κοτυλaff]
Μέδ-ιμνος =	48	Χοιν-ικες	[=Χοινuk]
	72	Ξέϛ-αι	[=Ξέϛpe]
	144	Κοτυλ-αι	[Κοτλaff]

* This is the common received content of a corn gallon, and according to which the following computations are made; but strictly, by act of parliament, the corn gallon contains but 268 ,8 cubic inches. By experiment it appears also, that the standard wine gallon doth contain but 224 cubic inches.—See Ward's Mathematician's Guide, Part I. Chap. 3.

Μετ = Χὰd = Ξoid = Κοτυλaff, Μέδ = Χοινok = Ξίςpeque = Κοτλaff.

Ξές-ης =	2	Κοτυλ-αι	[=Κοτυλ]
	8	Ὀξύ-ϐαφα	[=Ὀξύ]
	12	Κύαθ-οι	[=Κύαθbe]
	48	Μυςρ-α	[=Μυςρok]
	120	Κοχλ-ιάρια	[=Κοχλadz]

Ξές = Κοτυλe = Κοχλadz = Ὀξύk = Κύαθbeque = Μυςρok.

		Ξές-αι	
*Μετ-ρητὴς l. (=12 Χόες)	=	72	Μετ = Ξέςoid
Χȣ̃ς l (=12 Κότυλαι)	=	6	Χȣ̃ς = Ξau
Μέδιμ-ν© d.	=	72	Μέδιμ = Ξoid
Χοῖν-ιξ d.	=	1½	Χοῖν = Ξa, re
		Μύςρα	
Ξές-ης (=12 Κύαθοι)	=	48	Ξές = Μύςρok
Κοτύ-λη (=6 Κύαθοι)	=	24	Κοτύ = Mef
Ὀξύϐ-αφον (= 3 Κόγχαι)	=	6	Ὀξύϐ = Mau.
Κύαθ© (=5 Χῆμαι)	=	4	Κύα = Mo
Κόγχ-η (=5 Κοχλιάρια)	=	2	Κογχ = Me

Μετ = Ξέςoid, Χȣ̃ς = Ξau, Μέδιμ = Ξoid, Χοῖν = Ξa, re.
Ξές = Μύςρok, Κοτύ = Mef, Ὀξύϐ = Mau, Κύα = Mo, Κόγχ = Me.

Roman Measures of Capacity.

CULEUS =	20	AMPHORÆ	[=Amphez]
	40	URNÆ	[=Urnoz]
	160	CONGII	[=Congbauz]
SEXTARIUS =	2	HEMINÆ	[=Hemine]
	4	QUARTARII	[=Quartarf]
	8	ACETABULA	[=Acetak]
	12	CYATHI	[=Cyathbe]
	48	LIGULÆ	[=Liglok]

Cul = Amphez = Urnoz = Congbauz ——
Sext = Hemine = Quartarf = Acetak = Cyathbeque = Liglok.

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* Called also Ἀμφορεὺς, and Κάδ©.

N.B. l. denotes measures for liquid things, d. measures for dry things, the rest are used as measures for both.

	Sextarii	
Culeus l. (=20 Amphoræ) =	960	Cul=Sex*nauz*
Amphora l. (= 2 Urnæ) =	48	Amph=S*ok*
Urna l. (=2 Congii) =	24	Urn=Sext*ef*
Congius l. =	6	Congi=S*au*
Modius d. (=2 Semi-modii) =	16	Mod=S*as*

	Ligulæ	
Sextarius (=2 Heminæ) =	48	Sext=Ligul*ok*
Hemina (=2 Quartarii) =	24	Hemi=L*ef*
Quartarius (=2 Acetabula) =	12	Quart=L*ad*
Acetabulum (=1½ Cyathus) =	6	Acetab=L*au*
Cyathus =	4	Cyath=L*o*

Cul=Sex*nauz*, Amph=S*ok*, Urn=Sext*ef*, Congi=S*au*, Mod=S*as*.

Sext=Ligul*ok*, Hemi=L*ef*, Quart=L*ad*, Acetab=L*au*, Cyath=L*o*.

Jewish Measures of Capacity.

Bath =	3 Seahs	[=Sea*t*]
	6 Hins	[=Hin*s*]
	10 Omers	[=Omer*az*]
	18 Cabs	[=C*ak*]
	72 Logs	[=Log*pe*]
	96 Caphs	[=Caph*nau*]
	330 Gachals	[=Gachal*tiz*]

Bath=Sea*t*=Hin*s*=Omer*az*=C*ak*=Log*pe*=Caph*nau* =Gachal*tiz*.

	Baths or Ephahs	
Chomer or *Coron* =	10	Chom=Bath-Ephaz
Letech d. =	5	Let-Eph*u*

	Cabs	
Bath or Ephah =	18	Bath-Eph=Cab*ak*
Hin l. ½ of Seah =	3	Hin=Cab*i*
Seah =	6	Sea=Cab*s*

The Hin was = 12 Logs=16 Caphs l. [Hin=L*ad* =C*as*]

Cab=20 Gachals d. [Cab=G*ez*]

Omer or Gomer was a dry measure.

Chom=Bath=Ephaz, Let=Ephu: Bath-Eph=Cabak,
Hín=Cabi, Sea=Cabs.
Hín=Lad=Cas. Cab=Gez ——

The Memorial Lines.

Tun = Be=Pul=Hof=Tiers=Bark=Raf=Galdud
=Pidzas=Inukdad.
Bush=Peco=Galk=Pinso: Quar=Busk: Hog=
Galsi=Pinúzo.
GállW=eta, GalC=doid ,ro, Pin-dr=if ,rid, Pin-
liquid=ek ,prei.
Μετ=Χόα=Ξοid=Κοτυλaff, Μέδ=Χοιvok=Ξίςpeque=
Κοτλaff.
Ξές=Κοτυλε=Κοχλadz='Οξύk=Κύαθbeque=Μυςgok.
Μετ=Ξέςoid. Χᾶς=Ξau, Μέδιμ=Ξoid, Χοῦς=Ξa,re.
Ξές=Μύςgok, Κοτύ=Mef, 'Οξύϐ=Mau, Κύα=Mo, Κόγχ
=Me.
Cul=Amphez=Urnoz=Congbauz ——
Sext = Hemine=Quartarf=Acetak=Cyathbeque=
Liglok.
Cul=Sexnauz, Amph=Sok, Urn=Sextef, Congi=
Sau, Mod=Sas.
Sext=Ligulok, Hemi=Lef, Quart=Lad, Acetab=
Lau, Cyath=Lo.
Bath=Seat=Hins=Omeraz=Cak—Logpe=Caphnau
=Gachaltez.
Chom=Bath=Ephaz, Let=Ephu: Bath-Eph=Cabak.
Hín=Cabi, Sea=Cabs.
Hín=Lad=Cas. Cab=Gez.

TABLE VI.

Measures of Capacity reduced to English Measures.

A Pint dry	=	34 ,0312	Cubic inches.
A Pint liquid	=	28 ,875	Cubic inches.

—— Pin-dr=if ,zibe, Pin-liquid=ek ,koil.

DRY.

	Pints.	Inches.	Decim.
*Μέδιμν-Θ- [Μέδιμν=oiz-t]	70	03	,501
Modius [Mod=bau-p]	16	07	,68
Ephah [Eph=ub-ad]	51	12	,107
Ξέςης [Ξές=z-il]	00	33	,158
Sextarius [Sextar=a]	01	00	,48
Cab [Cab=d-ek]	02	28	,432

LIQUID.

	Pints.	Inches.	Decim.
†Μετρ-ητὴς [Μετρ=eid-an]	82	19	,626
Amphora [Am=up-az]	57	10	,66
‡Bath [Bath=sy-bu]	60	15	,2
Ξέςης [Ξές=a-f]	01	04	,283
Sextarius [Sext=a-u]	01	05	,636
‡Log [Log=z-do]	00	24	,2735

	Bushels.	Decim.
Μέδ-ιμνΘ- [Μέδ=a-zous]	1	,09612
Modius [Mod= ,eli'd]	0	,253525
Ephah / Chomer } [Eph= ,kydoti]	0	,802433

	Gallons.	Decim.
Μετρ-ητὴς [Μετρ=az ,til]	10	,335
Amphora [Amph=oi ,apad]	7	,1712
Bath [Bath=p ,laul]	7	,5658
Congius [Con= ,kousteil]	0	,896385

	Pints.	Decim.
Ξές-ης liquid [Ξές=a ,bok]	1	,1483
Ξέ-ςης dry [Ξέ=z ,noif]	0	,97447

* Besides the Attic Medimnus, there was a *Medimnus Georgicus*, equal to 6 Roman *Modii*.

† The Metretes of Syria was equal to the Roman *Congius* =7 ,171 pints.

‡ The Jewish measures are here, according to Bishop Cumberland, from the Rabbins: but Bishop Hooper, from Josephus, makes the Jewish Bath equal to the Attic Μετρητὴς, and consequently the Log equal to the Ξέςης. Dr. Arbuthnot has given us tables according to both, but seems to prefer Bishop Hooper's account to the other.

		Ints. Decim.
Sextarius liquid [Sext=á ,boulak]	1	,19518
Sextarius dry [Sext=a ,zafei]	1	,0148
Cab liquid [Cab=t ,isd]	3	,36257
Cab dry [Cab=e ,kóp]	2	,84731
Log [Log=z ,eif]	0	,84065

The Memorial Lines.

——— Pin-dr=if ,zibe, Pin-liquid=ek-koil.
Μέδιμν = oiz-t, Modi = bau-p, Eph = ub-ud, Ξ = it, Sextar=a, Cab=d-ek.
Bath=sy-bu, Μετς=eid-an, Am=up-az, Ξ=a-f, Sext=u-u, Log=z-do.
Eph = .kydoti,Mod=,elild=Μέδ=a,zous: Ξέ=z,noif, Cab=. kópque.
Amph=oi ,apad, Bath=p ,laul, Μετς=az ,til; Ξέ; =a bok, Cab=t ,isd,
Sext=á ,boulak: Con= ,kousteil: Sext=a ,zafei, Log =z ,eif.

TABLE VII.

Weights.

N.B. L or Li stands for Libra or pound, Oz. for ounce, Lít Pound T-roy, L-aver Pound Averdupois.

A Pound T-roy=12 ounces [Lít=Ozad]

An Ounce Troy = { 8 Drams [=Drák]; 24 Scruples [=Scref]; 20 P-enny weights [=Pez]; 480 Grains [Grafky] }

*A Pound Averdupois = { 16 Ounces [=Ozas]; 256 Drams [=Drels] }

Lít=Ozad,Oz=Drák=Scref=Pez=Grafky. Láv=Ozas. Láv=Drels.

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* According to the proportion laid down by Mr. Greaves, viz. that the averdupois pound is to the troy pound as 175 to 144 : in Dr. Arbuthnot's tables it is as 17 to 14, which is a very inconsiderable difference, being but 4 2/7 grains less in the pound.

	Grains Troy.
Pound Troy [Lit=Grupauz]	5760
Ounce Troy [Oz=oky]	480
Dram [Di=auz]	60
Penny-weight [Pen=gref]	24
Scruple [Scrup=dy]	20
*Pound A Verdupois [Lav=oith]	7000
Ounce A Verdupois [OzAv=otoi,l]	437 ,5

Lit=Grupauz, Oz=oky, Di=auz, Pen=gref, Scrup =dy, Lav=oithque,
OzAv=otoi,l ——— ———

Ancient Weights.

Attic talent =	60 Minas	[=Mauz]
	6000 Drachms	[=Drauth]
Hebrew Talent=	3000 Shekels	[=Shith]
	60 Manehs	[=Mauz]
Shekel =	2 Bekahs	[=Beke]
	4 Zuzas	[=Zuf]
	20 Gerahs	[=Gez]

At=Mauz=Drauth: Het=Shith: Het=pond= Mauz: Shek=Beke=Zuf=Gez.

Roman and Grecian lesser Weights.

Libra =	12 Unciæ	[Lib=Unad]
Uncia =	3 Duellæ	[=Duel]
	4 Sicilici	[=Sicilo]
	6 Sextulæ	[=Ses]
	8 Drachmæ	[=Drak]
Drachma=	8 Scriptula	[=Scrip]
	6 Oboli	[=Obs]
	18 Siliquæ	[=Silak]
	72 Grana *vel* Lentes	[=Groid]

Lib=Unad ——— ———
Un = Duel=Sicilo=Ses=Drak: Drach = Scrip= Silak=Obs=Groid.

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* Mr. Ward says, that, by a very nice experiment, he found that one pound averdupois is equal to 14 ounces 11 penny-weights and 15½ grains troy, which is 6999½ grains; differing but half a grain in the pound from Mr. Greaves.—Mathematician's Guide, Part I. Chap. 3.

		Grana Σιτάςια.
Libra Λίτςα [Lib=grasnad]		6912
Uncia 'Ουγία [Unc=lois]		576
*Drachma Δςαχμη [Drachm=oid]		72
Scrupulum Γςάμμα [Scrupul=ef]		24
†Obolus 'Οβολ© [Obol=ad]		12
Siliqua Κεςάτιον [Sil=f]		4

Lib=grasnad, Unc=lois, Drachm=oid, Scrupul=ef, Obol=ad, Sil=f.

Divisio Assis.

	Unc.		Unc.
As	12	Semis	6
Deunx	11	Quincunx	5
Dextans	10	Triens	4
Dodrans	9	Quadrans	3
Bes	8	Sextans	2
Septunx	7	Uncia	1

As= dëu—dex—dod-bes—septún-semi—quin-tri-qua—sext-unc.

The Memorial Lines.

Lít=Ozad, Oz=Drák=Scref=Pez=Grafky=Láv=ozas, Láv=trels

Lit=grupauz, Oz=oky, Dr=auz, Pen=gref, Scrup=ýy, Lav=oithqu ,

OzAv=oloi,l ——————

At=Mauz=Drauth: Het=Shith: Het-pond=Mauz: Sjek=Beke=Zuf=Gez.

Lib=Unad ——

Un = Duelt = Sicilo=Ses=Drak: Drach=Scripf=Silak=Obs=Groid.

N.B. The Romans divided their ounce into 7 denarii as well as 8 drachms; and since they reckoned their denarius equal to the Attic drachm, this will make the Attic weights ⅛ heavier than the correspondent Roman weights.

† The 'Οβολ© was divided into 6 Χαλ-κοὶ or *Æreoli*, and the Χαλκὸς into 7 Λεπτ-α or *Minuta*. ['Οβ=Χαλς, Χαλκ=Λεπτοί.]

The Ημιωβολον, Ημίδςαχμον, Δίδςαχμον, &c. are evident from their names.

Lib=*grasnæd*, Unc=*lois*, Drachm=*oid*, Serupul=*f*, Obol=*ad*, Sil=*f*.

As = dëu-dex—dod-bes—septún-semi—quin-tri-qua —sext-unc.

TABLE VIII.

Ancient Weights reduced to English Troy Weights.

	Troy Grains.	Decim.
Roman Ounce [Rom-oz=*fik*]	438	,00
Shekel [Shek=*ebou*]	219	,00
*ROman D-rachm [Rod=*uf* ,*pu*]	54	,75
Denarius [Den=*se* ,*loi*]	62,	57
†A-ttic D-rachm [Ad=*sei* ,*f*]	68	,4

	lib.	oz.	p-w.	gr.
ROman L-ibra [Rol=*az-an*]		10	19	00
Hebrew M-aneh [Hem=*e-t-oi-be*]	02	03	07	12
Hebrew T-alent [Het=*báf-yz-al*]	114	00	15	00
‡Ancient Attic M-ina [Atm=*a-d-u*]	01	02	05	00
Ancient Attic T-alent [Att=*pa-t*]	71	03	00	00

* So Bishop Cumberland, from the Rabbinical accounts. But Bishop Hooper, from Philo and Josephus, makes it equal to the Attic *Stater*, or Tetradrachm =68 ,4+4, or 67 + 4 grains.

† According to the weight of the standard mina of Solon, Bishop Hooper supposes, that whilst the money drachm fell gradually from 68 ,4 to 62 ,57 grains, the ponderal drachm continued still the same, which I have therefore here retained. Dr. Bernard lays the middle sort of Attic drachms at 66 grains, which (Table I.) are accordingly valued at 8*d*¼. But the weight of the Attic drachm, under the first Roman Emperors, and for some considerable time before, was about 62 ,57 grains; and upon this drachm, and the equality of it with the Roman denarius, most of the computations in classic authors are founded.

‡ The common Attic mina was supposed equal to 12½ Roman ounces. The mina medica was 16 Roman ounces, and exactly the weight of our averdupois pound.

The Memorial Lines.

Rom-oz=*fik*, Shek=*ebou*, Rod=*uf*,*pu*, Den=*se*,*loi*, Ad=*sei*,*f*.
Het=*tiáf-yz-al*, Rol=*az-an*, Hem=*e-t-oi-be*, Atm =*a-d-u*, Ati=*pa-t*.

TABLE IX.

Jewish and Roman Money, according to Bishop Cumberland.

	l.	s.	d.
Hebrew M-ina [Hem=*p-a-l*]	7	01	05
Hebrew T-alent [Het=*tút-ab-az-h*]	353	11	10½
Golden Darick=12 G-erahs [Dar =G*ád*=l*a*-d*o*]	1	00	04
Hebrew T-lent of gold (Or) [HetO=*ufoil-ba-p-h*]	5475	11	07½
Shekel [Shek=*sé-do*,*ro*]		02	04¼
Silver Denarius [Den=d*oi-t*]		00	07¼
Assarium Farthing and *h*alf [Assar=F*ah*]			
A Quadrant ¼ of a farthing [Quád=*iro*]			
A Mite ⅓ of a F-arthing [Mit=*rif*]			

The Memorial Lines.

Hem=*p-a-l*, Het=*tút-ab-az-h*, Dar=G*ád*=l*a*-do, HetO=*ufoil-ba-p-h*.
Shek=*sé* d*o*,*ro*, Den=d*oi-t*, Assar=F*ah*, Quád=*iro*, Mit=*rif*.

Decimal Tables for the more easy Reduction of ancient Coins, Weights, and Measures.

Those who understand decimal arithmetic will, I hope, excuse me, if, for the sake of such as are unacquainted therewith, I lay down two or three observations, in order to make the following tables more generally useful:

First, that the denominator of every decimal fraction is an unit, with as many cyphers as there are places of numbers in the fraction; thus ,5 signifies $\frac{5}{10}$, 05 signifies $\frac{5}{100}$, 005 signifies $\frac{5}{1000}$, &c.*

Secondly, that the nine figures at the left hand of each of the tables may stand either for units, or, by the supposed addition of one, two, three, or more cyphers, for tens, hundreds, thousands, &c.

Thirdly, that if the said nine figures are supposed to stand for one, two, three, four, &c. then the decimals stand as in the table: if for ten, twenty, thirty, forty, &c. or for one hundred, two hundred, &c. then, for every such supposed addition of a cypher, one figure in the place of decimals is to be added to the place of integers.

Thus a Jewish cubit is equal to 1 English foot, and 824 thousandth parts of a foot.

		Feet decim.
1 cubit	=	1 ,824
10 cubits	=	18 ,24
100 cubits	=	182 ,4
1000 cubits	=	1824

If there are not places enough of decimals to answer, they must be supplied with cyphers:

			Lib. decim.
Thus,	1 Attic talent	=	206 ,25
	10 Attic talents	=	2062 ,5
	100 Attic talents	=	20625
	1000 Attic talents	=	206250 &c.

2

But as the common computation in classic authors is by sesterces and drachms, I shall exemplify more particularly the foregoing observations in the two tables drawn up for them.

SESTERCE = 1*d.* 3*f.* $\frac{3}{4}$ in decimal fractions of a pound sterling = ,00807291667] [Sest=*zykypenassoi*]

A-ttic D-rachm, or Roman denarius, =7*d.* 3*f.* in decimal fractions of a pound sterling = ,032291667 [AD=*zidenassoi*]

1 Sestertius.	Decem Sestertii or Nummi.	Centum Sestertii.	Sestertium, or 1000 Sestertii.	Decem Sestertia, or 10000 HS.	Centum Sestertia, or 100000 HS.	Decies Sestertium, or 1 Million HS.	Centies Sestertium, or 10 Millions HS.	Millies Sestertium, or 100 Millions HS.	Decies Millies, or 1000 Millions HS.	Centies Millies, or 10000 Millions HS.	Millies Millies, or 100000 Millions HS.
1	,0	0	8	0	7	2	9	1	6	6	7
2	,0	1	6	1	4	5	8	3	3	3	3
3	,0	2	4	2	1	8	7	5	0	0	0
4	,0	3	2	2	9	1	6	6	6	6	7
5	,0	4	0	3	6	4	5	8	3	3	3
6	,0	4	8	4	3	7	5	0	0	0	0
7	,0	5	6	5	1	0	4	1	6	6	7
8	,0	6	4	5	8	3	3	3	3	3	3
9	,0	7	2	6	5	6	2	5	0	0	0

1 Drachm.	10 Drachms.	100 Drachms, or 1 Minæ.	1000 Drachms, or 10 Minæ.	1 Myriad (=10000 Dr.) or 100 Minæ.	10 Myriads (= 100000 Dr.) or 1000 Minæ.	100 Myriads (=1 Million Dr or 10000 Minæ.	1000 Myriads (= 10 Mill Dr.) or 100000 Minæ.	10000 Myriads of Drachms, or Myr. of Myriads.	10 Myriads of Myriads of Drachms.
1	,0	3	2	2	9	1	6	6	7
2	,0	6	4	5	8	3	3	3	3
3	,0	9	6	8	7	5	0	0	0
4	,1	2	9	1	6	6	6	6	7
5	,1	6	1	4	5	8	3	3	3
6	,1	9	3	7	5	0	0	0	0
7	,2	2	6	0	4	1	6	6	7
8	,2	5	8	3	3	3	3	3	3
9	,2	9	0	6	2	5	0	0	0

According to the observations before laid down, it is evident that

	Lib.
1 Sestertium, or 1000 HS.	008 ,07291667
2 Sestertia, or 2000 HS.	016 ,14583333
3 Sestertia, or 3000 HS.	024 ,21875

And so down to 9 sestertia; the three first figures of the table being integers, the rest decimals. So,

		Lib.
*Decies Sestertium, or 1 Mill. HS.	=	8072 ,91667
Vicies, or 2 Million HS.	=	16145 ,83333
Tricies, or 3 Million HS.	=	24218 ,75 &c.

Hence the value of most of the sums mentioned in classic authors may be discovered from the tables at first sight; the rest by the help only of addition. Thus,

What is the Value of the Centies Quinquagies HS?

		Lib. Decim.
Centies HS.	=	80729 ,1667
Quinquagies	=	40364 ,5833
Centies Quinquagies		121093 ,75

What is the Value of 375 Attic Drachms?

300 Drachms		9 ,6875
70 Drachms		2 ,26041667
5 Drachms		0 ,16145833
375 Drachms	=	12 ,109375

What is the Value of 51 Myriads of Drachms?

50 Myriads	=	16145 ,83333
1 Myriad	=	322 ,91667
51 Myriads	=	16468 ,75

Note, That the table for drachms or denarii, will also serve for minæ and for asses, remembering that a denarius is equal to 10 asses, and a mina to 100 drachms. Thus,

* With the numeral adverb, *Centena Millia* are always understood.

	Lib.	Decim.
Æris (sc. Assium) Millia X = 1000 denarii	32	,291667
Æris Millia XXV = 2500 denarii =	80	,72916
Æris Millia LXXV = 7500 denarii =	242	,1875

What has been already said will easily be applied to those which follow:

*Attic drachm =8*d.* $\frac{3}{4}$			*Attic talent =206*l.* 5*s.*			†Attic talent =193*l.* 15*s.*		
		l. decim.		*l.*	*decim.*		*l.*	*decim.*
1		,034375	1	206	,25	1	193	,75
2		,068750	2	412	,50	2	387	,50
3		,103125	3	618	,75	3	581	,25
4		,137500	4	825	,00	4	775	,00
5		,171875	5	1031	,25	5	968	,75
6		,206250	6	1237	,50	6	1162	,50
7		,240625	7	1443	,75	7	1356	,25
8		,275000	8	1650	,00	8	1550	,00
9		,309375	9	1856	,25	9	1743	,75

‡Shekel = 2*s.* 7*d.*			‡Hebrew talent = 387*l.* 10*s.*			Heb. tal. gold =16 tal. silver.	
		decim.		*l.*	*decim.*		*l.*
1		,129166667	1	387	,5	1	6200
2		,258333333	2	775	,0	2	12400
3		,387500000	3	1162	,5	3	18600
4		,516666666	4	1550	,0	4	24800
5		,645833333	5	1937	,5	5	31000
6		,775000000	6	2325	,0	6	37200
7		,904166666	7	2712	,5	7	43400
8	1	,033333333	8	3100	,0	8	49600
9	1	,162500000	9	3487	,5	9	55800

* According to Dr. Bernard.
† According to Dr. Arbuthnot.
‡ The shekel is here valued equal to 4 Attic drachms, according to Josephus; and this valuation Dr. Arbuthnot has followed in his Dissertations, though his tables are according to Bp. Cumberland. The talent=3000 shekels.

Grecian Digit

	Inch	decim.
1	0	,75546875
2	1	.51093750
3	2	,26640625
4	3	,02187500
5	3	,77734375
6	4	,53281250
7	5	,28828125
8	6	,04375000
9	6	,79921875

Roman Digit

	Inch	decim.
1	0	,72525
2	1	,45050
3	2	,17575
4	2	,90100
5	3	,62625
6	4	,35150
7	5	,07675
8	5	,80200
9	6	,52725

Jewish Digit

	Inch	decim.
1	0,	912
2	1,	824
3	2,	736
4	3,	648
5	4,	560
6	5,	472
7	6,	384
8	7,	296
9	8,	208

Grecian Foot

	Feet	decim.
1	1	,00729
2	2	,01458
3	3	,02187
4	4	,02916
5	5	,03645
6	6	,04375
7	7	,05104
8	8	,05833
9	9	,06562

Roman Foot

	Feet	decim.
1	0	,967
2	1	,934
3	2	,901
4	3	,868
5	4	,835
6	5	,802
7	6	,769
8	7	,736
9	8	,703

Jewish Cubit

	Feet	decim.
1	1	,824
2	3	,648
3	5	,472
4	7	,296
5	9	,120
6	11	,944
7	12	,768
8	14	,592
9	16	,416

Roman Mile

	Mile	decim.
1	0	,915719
2	1	,831438
3	2	,747157
4	3	,662876
5	4	,578595
6	5	,494314
7	6	,410033
8	7	,325752
9	8	,241471

Jewish Mile

	Mile	decim.
1	1	,3817
2	2	,7634
3	4	,1451
4	5	,5268
5	6	,9085
6	8	,2902
7	9	,6719
8	11	,0536
9	12	,4353

Roman Sq. Foot

	Sq. Feet	decim.
1	0	,935089
2	1	,870178
3	2	,805267
4	3	,740356
5	4	.675445
6	5	,610534
7	6	,545623
8	7	,480712
9	8	,415801

Grecian Sq. Foot	*Sq. Feet decim.*
1	1,0146365
2	2,0292730
3	3,0439095
4	4,0585460
5	5,0731825
6	6,0878190
7	7,1024555
8	8,1170920
9	9,1317285

Πλέθρον	*Acre decim.*
1	0,230632
2	0,461264
3	0,691896
4	0,922528
5	1,153160
6	1,383792
7	1,614424
8	1,845056
9	2,075688

Jugerum	*Acre decim.*
1	0,61824
2	1,23648
3	1,85472
4	2,47296
5	3,09120
6	3,71944
7	4,32768
8	4,94592
9	5,56416

Egyptian Ἄρουρα	*Acre decim.*
1	0,763768
2	1,527536
3	2,291304
4	3,055072
5	3,818840
6	4,582608
7	5,346376
8	6,110144
9	6,873912

Ξέστης dry	*Pint decim.*
1	0,97447
2	1,94894
3	2,92341
4	3,89788
5	4,87235
6	5,84682
7	6,82129
8	7,79576
9	8,77023

Sextarius dry	*Pint decim.*
1	1,0148
2	2,0296
3	3,0444
4	4,0592
5	5,0740
6	6,0888
7	7,1036
8	8,1184
9	9,1332

Cab dry	*Pint decim.*
1	3,84731
2	7,69462
3	11,54193
4	15,38924
5	19,23655
6	23,08386
7	26,93117
8	30,77848
9	34,62579

Medimnus	*Bushel decim.*
1	1.09612
2	2,19224
3	3,28836
4	4,38448
5	5,48060
6	6,57672
7	7,67284
8	8,76896
9	9,86508

Modius	*Bushel decim.*
1	0,253525
2	0,507050
3	0,760575
4	1,014100
5	1,267625
6	1,521150
7	1,774675
8	2,028200
9	2,281725

	Ephah. *Bushel decim.*		Ξέστης liquid *Pints decim.*		Sextarius liquid *Pints decim.*
1	0 ,802433*	1	1 ,1483	1	1 ,19518
2	1 ,604867	2	2 ,2966	2	2 ,39036
3	2 ,407300	3	3 ,4449	3	3 ,58554
4	3 ,209734	4	4 ,5932	4	4 ,78072
5	4 ,012168	5	5 ,7415	5	5 ,97590
6	4 ,814601	6	6 ,8898	6	7 ,17108
7	5 ,617035	7	8 ,0381	7	8 ,36626
8	6 ,419469	8	9 ,1864	8	9 ,56144
9	7 ,221902	9	10 ,3347	9	10 ,75662

	Cab liquid *Pints decim.*		Log *Pints decim.*		Amphora *Hhds. decim.*
1	3 ,36257	1	0 ,84064	1	0 ,113821
2	6 ,72514	2	1 ,68128	2	0 ,227642
3	10 ,08771	3	2 ,52192	3	0 ,341463
4	13 ,45028	4	3 ,36256	4	0 ,455284
5	16 ,81285	5	4 ,20320	5	0 ,569105
6	20 ,17542	6	5 ,04384	6	0 ,682926
7	23 ,53799	7	5 ,88448	7	0 ,796747
8	26 .90056	8	6 ,72512	8	0 .910568
9	30 ,26313	9	7 ,56576	9	1 ,024389

	Metretes *Hhds. decim.*		Bath *Hhds. decim.*		Congius † *Gall. decim.*
1	0 ,16404	1	0 ,114858	1	0 ,896385
2	0 ,32808	2	0 ,229716	2	1 ,792770
3	0 ,49212	3	0 ,344574	3	2 ,689155
4	0 ,65616	4	0 ,459432	4	3 ,585540
5	0 ,82020	5	0 ,574290	5	4 ,481925
6	0 ,98424	6	0 ,689148	6	5 ,378310
7	1 ,14828	7	0 ,804006	7	6 ,274695
8	1 ,31232	8	0 ,918864	8	7 ,171080
9	1 ,47636	9	1 ,033722	9	8 .067465

* The exact fraction is ,802433⅓. In the Jewish measures I have followed Bishop Cumberland. The Ephah, according to Josephus, =1 ,0961 bushel, and the Cab=3 ,874 pints; the Cab liquid =4 ,5933 pints, the Log equal to the Attic Ξέστης, and the Bath equal to the Metretes.

† Equal to the Metretes of Syria.

Attic Drachm = 62 ,57 gr.

	oz.	decim.
1	0	,130215
2	0	,260430
3	0	,390645
4	0	,520860
5	0	,651075
6	0	,781290
7	0	,911505
8	1	,041720
9	1	,171935

Shekel = 4 Att. Drachms

	oz.	decim.
1	0	,52086
2	1	,04172
3	1	,56258
4	2	,08344
5	2	,60430
6	3	,12516
7	3	,64602
8	4	,16688
9	4	,68774

Attic Drachm = 62 ,57 gr.

	Pound Troy	decim.
1	0	,01085125
2	0	,02170250
3	0	,03255375
4	0	,04340500
5	0	,05425625
6	0	,06510750
7	0	,07595875
8	0	,08681000
9	0	,09766125

Shekel =219 gr. Troy

	Po. Troy	decim.
1	0	,0380208$\frac{1}{3}$
2	0	,0760416$\frac{2}{3}$
3	0	,1140625
4	0	,1520833$\frac{1}{3}$
5	0	,1901041$\frac{2}{3}$
6	0	,2281250
7	0	,2661458$\frac{1}{3}$
8	0	,3041666$\frac{2}{3}$
9	0	,3421875

Shekel = 4 Att. Drachm

	Po. Troy	decim.
1	0	,043405
2	0	,086810
3	0	,130215
4	0	,173620
5	0	,217025
6	0	,260430
7	0	,303835
8	0	,347240
9	0	,390645

Roman Libra.

	Po. Troy	decim.
1	0	,9125
2	1	,8250
3	2	,7375
4	3	,6500
5	4	,5625
6	5	,4750
7	6	,3875
8	7	,3000
9	8	,2125

MISCELLANEA.

SECTION VI.

The Proportion of the Diameter to the Circumference of a Circle: the Area of a Circle and Ellipsis; the Surface and Solidity of a Sphere.

Diameter : Periphery : : 7 : 22, [Di : peri : : *p* : *ed*] or : : 113 : 355. or more exactly the Diameter : Periphery : : 10.000,000 : 31.414,929.

Di : peri : *p* : *ed* : : *bat* : *ilu* : Dia : priph : : *azmíl* : *ta-fal-oudou.*

According to Van Ceulen, who carried the proportion to six and thirty figures, which, in memory of so laborious a work, were engraven upon his tomb at St. Peter's, in Leyden, the diameter : Periphery : : 2 :

Quintil. Quadr. Tril. Bil. Mil. Un.
6,28,318.530,717.958,647.692,528.676,655.930,576.

s ,ektak, uïz-pap, nuk-sôp, sne-lek, aúps-sul, ouïz-lois.

The Diameter multiplied by 3 ,1416 gives the Periphery [Di*peri* ,*bobs* dat priph], consequently the periphery divided by 3 ,1416 gives the diameter.

The Area of a circle is given by multiplying the Square of the D-iameter into 0 ,7854.

Datur Area SquaD per *y,peilo.*

The Area likewise is given by multiplying the fourth part of the Diameter into the Periphery. Ar=,odi + pe]

The AREA of an ELLIPSIS is given by multiplying the rectangle of the TRANSverse and CONjugate DIAmeters into 0,7854.

Area fit Ellips. Dia-tran-con duct. in *y,peilo.*

The SURFace of a sphere is given by multiplying the PEriphery into the D-iameter [Surf=$\overline{\text{pe}+\text{D}}$]

The SURFace of a sphere is also given by multiplying the AREA of its largest circle into 4. [Surf=$\overline{\text{are}+o}$]

The SOLidity of a SPHEre is given by multiplying ⅓ of the RADius into the SURface. [Sol-sphe=$\overline{\text{rad}+\text{sur}}$]

The Memorial Lines.

Di : peri : : *p* : *ed* : : *bat* : *ilu.* DIA : priph : : *azmil* : *tu-fal-oudou.*

s,oktak,uiz-pap,nuk-sbp, sne-tek, aups-sul,ouiz-lois.

Diperi,*bobs* dat Priph. datur Area squaD per *y,peilo.*

Area fit Ellips. Dia-tran-con duct. in *y,peilo.*

Ar=$\overline{\text{radi}+\text{pe}}$, Surf=$\overline{\text{pe}+\text{D}}$, Surf=$\overline{\text{are}+o}$, Sol-sphe =$\overline{\text{rad}+\text{sur}}$.

The Quantity of Vapours raised out of the Sea, estimated by Dr. Halley.

The MEDiterranean, supposed to be equal to 160 square DEGrees, is computed to yield in vapour, *per diem*, 5280 MILlions of T-ons [Med=dég*bauz* =*leky*milT]

The THAMes is computed to carry down in a day of 24 hours, into the sea, 20.300,000 TONS [Tham= *ez-igth*ton]

The rivers (FLUVii) which run into the MEDiterranean, are computed to carry 1827.000,000 tons, which is little more than ⅓ of what is raised in vapour [Fluv-med=*akép*milT]

The Memorial Line.

Med=dég*bauz*=*leky*milT. Tham=*ez-igth*ton. Fluv-med=*akép*milT.

The Computations are made thus:

By experiment it appears, that each SQUARE F-oot of the surface of water yields in vapour, *per diem*, HAlf a wine PINT [SquaF=ha-pin]

Each space of four feet square (=16 SQUAre F-eet) yields a GALlon [*as*squaF=gal]

A MILe square 6914 TONS [Mil*snaf*ton]

A square DEGree (of 69½ English miles) 33.000,000 tons [Dég (mi*sou*) *tim*ton]

The Mediterranean = square 160 degrees = 5280.000,000 tons as above.

The Memcrial Line.

SquaF=ha-pin : *as*squaF=gal : Mil=*snaf*ton : Dég (mi*sou*) *tim*ton.

The Quantity of Water the Mediterranean receives from the Rivers that fall into it, is estimated thus:

The most considerable rivers that run into the Mediterranean are the EBro, the RHONe, the TIber, the PO, the NILe, the DON or Tanais, the DANube, the NIESTer, the NIEPER or Borysthenes. Each of these is supposed to carry down ten times as much water as the Thames: not that any of them is so great, but so to allow for the small rivers that run into that sea. Now the water of the THAMes being computed at about 20.300,000 tons, as above, the nine rivers aforesaid each will amount to 203.000,000; in all, 1827.000,000 T-ons.

The Memorial Line.

Thám=*ez-igth*T, Eb-Rho-Ti-Po, Nil-Don, Dan-Niest-Nieper-*akép*milT.

The Water of the Thames is computed thus:

It is supposed to run at Kingston bridge, where the tide reaches not, at the rate of two miles an hour, which is 48 miles in 24 hours; 48 MIles are equal to 48,480 YArds. [MI*fk*=Ya*ko-feiz*], which being multiplied by 300 YArds (the PROfile of water at

Kingston bridge, where it is supposed to be 100 yards broad and 3 deep) produces 25.344,000 cubic Y-ards of water [Y*ako feiz* per *ig*=Y*ét-tfoth*], which are equal to 20.300,000 Tons [=*ez-igth*ton]

The Memorial Line.

Mi*fk*=Y*ako-feiz* (Kin-pr*ig*) Y*ako-feiz* per *ig*=Y*ét-tfoth*=*ez-igth*ton.

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The Velocity of Sound, Light, &c

A cannon bullet (Globus tormento bellico emissus) in a Second, moves 204 Yards [In-sec Glob-yar*ezo*]

Light (Lumen) in a second moves 200,000 Miles [Lu-mil*egth*]

Sound (Sonus) moves in a second 1142 feet (Pedes) [Son-ped-move*tabfe*]

A cannon bullet moves a M-ile in 17 half Seconds [Glob-m *áp*ha-sec]

Sound moves a mile in 9 half seconds ¼. [Son*n*,*ro*]

A cannon bullet would be in moving to the sun (Ad Solem) 32 years ½. [Ad-sol-glob=án-*te*,*re*]

Sound would be in moving to the sun 17 years [Sonap]

The descent of heavy bodies (Descensus gravium) is 16 F-eet $\frac{1}{12}$, or an inch, in a Second [Des-gravi-sec = f*as*,*rad*] and in more seconds as the squares of those times.

A Pendulum of 39 inches 2 tenths (Pendulum In*tou*,*d*) Oscillates or vibrates Seconds [Oscil-sec-Pendulum-In*tou-d*]

The Memorial Lines.

In-sec Glob-yar*ezo*, Lu-mil*egth*, Son-ped-move*tabfe*.
Glob-m *áp*ha-sec, Son*n*,*ro*, Ad-sol-glob=áu-*te*,*re*, Son*ap*
Des-gravi-sec=f*as*,*rad*, Oscil-sec-Pendulum-In*tou*,*d*.

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The Jewish Months.

Nisan or Abib * *March*

* *i. e.* part of March and part of April, and so of the rest.

ZIF or J-air	*April*
SIVAN	*May*
THAMUZ	*June*
AB	*July*
ELUL	*August*
TIZRI or ETHENIM	*September*
BUL or M-erchesvan	*October*
CHISLEU	*November*
THEbeth	*December*
SHEBeth	*January*
ADar or Veadar	*February*

The Memorial Lines.

Nis-Ab*imar*, Zif-*jap*, Si*ma*, Thám*jun*, Ab*jul*, Elú*laug*. Tizr-Ethe*sep*, Bul-*moc*, Chisleu*N*, The*de*, Sheb*jan*, & Ad*feb*.

The Grecian Months.

ʽΕΚατομϐαιὼν	*June*
ΜΕΤΑΓΕΙτνιὼν	*July*
ΒΟΗΔΡομιὼν	*August*
ΜΑΙμακτηριὼν	*September*
ΠΥΑΝεψιὼν	*October*
ΠΟΣειδεὼν	*November*
ΓΑΜηλιὼν	*December*
ʼΑΝΘΕΣτηριὼν	*January*
ʼΕΛΑφηϐολιὼν	*February*
ΜΟΥνυχιὼν	*March*
ΘΑΡΓΗΛιὼν	*April*
ΣΚΙΡροφοριὼν	*May*

The Memorial Lines.

Hec*ju*, Metág*ijul*, Boedr*aug*, Mai*S*, Pyan*O*, Pos*nov*. Gam*decem*, Anthes*jan*, Ela*feb*, Mou*M*, Thargel*A*, Skir*ma*.

Note, That the Athenians began their year from the new moon, whose full was next after the summer solstice, which was at first reckoned to be upon the 8th of July, after on the 27th of June. *Vide Beveregii Chron. Instit.* lib. i. cap. 12.

Jewish and Christian Æra of the Creation.

Both Jewish and Christian writers make use of the æra of the creation of the world; but there is great variety of opinions concerning the number of years between that and the birth of Christ. That which is most generally received is, that the first year of the vulgar Christian æra commences from the day of his circumcision, viz. the first of January, in the year of the world 4004, and of the Julian period 4714. The Jews place the creation of the world *later* by about 243 years; and the Greek historians, upon the authority of the Septuagint, *sooner* by about 1490 or 1500 years; so that

Oct. 7	of the first year of the Christian æra	began	the 3762 year of the Jewish æra
Aug. 27			the 5494 of the Greek Ecclesiastical æra
Sept. 1			the 5509 of the Greek Civil æra.

The Memorial Line.

Christ = múndothf, Jud = *ipaud*, Grec-Ecc = *lonf*, Grec-Civil = *ulzou*.

*The Days * of the Month on which the other noted Epochas began.*

			Before Christ.
The destruction of Troy	*June*	16.	1183
† The first Olympiad	*June*	19.	776
The building of ROme	*April*	21.	753
‡ Æra of Nabonassar	*Feb.*	26.	747

* For the years, see page 7.

† The last day of the Olympic games was upon the full moon immediately after the summer solstice.

‡ The Nabonassarean years, not admitting any intercalary day, began, after every four years, a day sooner, and in 1461 years (*bosa*) went back throughout the whole Julian year, and began on the same day again.

The PHILippic æra	*Nov.* 12.	324
Æra of CoNtracts	*Oct.* 1.	312
The VICTory at Actium	*Sept.* 2.	31
		An. Dom.
The Dioclesian æra	*Aug.* 29.	284
The MAHometan æra	*July* 16.	622
The æra of YEzdegird	*June* 16.	632

The Memorial Lines.

Mund = Oc*toi*, Oly-*jan*, Phil-n*ad*, Nab-*fés* (*bosa*) Ro-p*da*.

Yez-Troy-j*as*, Maho-l*as*, Dio-*gen*, Vict-Ac*ta*-*se*, Con-*ta*.

The specific Gravities of some Metals, and other Bodies. *

A cubic inch of		Ounces Troy.	decim.
	†Fine gold [Aur=*az*,*iloud*] =	10	,359273
	Fine silver [Arg=*l*,*eil*]	5	,850035
		Ounces Averd.	decim.
	Lead [Plumb=s,*lutkul*]	6	,553855
	Common iron [Fer=*f* ,*oden*]	4	,422979
	Fine marble [Mar=*b*,*laukk*]	1	,568859
	Common glass [Vitru=*b*,*oniz*]	1	,493037
	Com. clear water [Aqua=*loiksoup*]	1	,578697
	Sound dry oak [Robo=*lislaun*]		,536569
	Oil Olive [Ol-Ole=*lektuz*]		,528350

Aur=*az*,*iloud* : Arg=*l eil*. Plum=*s*,*lutkul* : Fer=*f*,*oden* : Mar=*b*,*laukk*.

Vitru=*b* ,*oniz* : Aqua=,*loiks* : Robo=*lislaun* : Ol-Ole=*lektuz*.

Numerus Dignitatum. &c. Tempore Camdeni.

‡ Sunt in Anglia DECANatus 26, ARCHIdiaconatus 60, Dignitates & PRÆBendæ 541, Ecclesiæ-

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* See Ward's Mathematician's Guide, part i chap. 10.

† The beginning of the *technical* words is from the Latin word for each.

‡ *Camdeni Britannia*, edit. Jans, p. 67.

PAROCHIALES 9284 e quibus 3845 sunt APPROPRIATÆ In libro tamen Thomæ Wolsæi Cardinalis descripto 1520, per comitatus numerantur ecclesiæ 9407.

The Memorial Line.

Sunt Decan*es*, Archd*auz*, Præb*lof*, Paroch*oudeif*, Appri*kfu*.

The Temple of the eight Winds, mentioned in Dr. Potter's Archæologia.

Εὖρος	EURUS	S-outh E-ast.
Ἀπηλιώτης	Subsolanus	E-ast.
Καικίας	CÆCIAS	N-orth E-ast.
Βορέας	BOREAS	N-orth.
Σκίρον	CORUS	N-orth W-est.
Ζέφυρος	Occidens	W-est.
Νότος	NOTUS	S-outh.
Λίψ	AFRICUS	S-outh W-est.

The Memorial Line.

Cæci=NE, Σκι-Cor=NoW, Eû=SE, A-Af=SoW, Bór=N, Aπ=E, NotS, Z=Ow.

According to Aulus Gellius, the Winds are thus distinguished.

Septentrio	Ἀπαρκτίας	North.
Eurus	Subsolanus	East.
Auster	Notus	South.
Favonius	Zephyrus	West.
Boreas	Aquilo	North East.
Vulturnus	Euronotus	South East.
Caurus	Ἀργεστὴς	North West.
Africus	Libs	South West.

Roman Militia.

A LEGION	=	10 COhorts.
A COHORT	=	3 MANIPULI.
A MANIPULUS	=	2 ORDINES.
A TURMA	=	3 DECURIOS.

10. Turmæ were the *justus equitatus*, or horse belonging to a Legion.

The Memorial Line.

Legi = co*az*, Coho = man*t*, Manip = or*d*, Turm = décuri, T*az*-le.

Roman Law.

Primus fundus Jurisprudentiæ Romanæ, Legum Regiarum fragmenta, (quæ a Sexto Papirio olim in unum corpus collecta fuerant) sc. trium Regum ROmuli, Numæ and Servii Tullii; secundus, leges 12 Tabularum; tertius, Edictum Perpetuum quod (Adriani Imp. Authoritate) a Salvio Juliano conditum atque in titulos digestum.

Codex Justinianus compositus ex codicibus Gregoriano, Hermogeniano atque Theodosiano, novellisque post eos positis constitutionibus.

Gregorianus & Hermogenianus nominantur ab authore. Prior codex ab A-driano ad VAlerium latas leges continebat, secundus a Claudio ad Diocletianum; Theodosianus leges COnstantini ad Theodosium. Novellæ a Theodosii temporibus ad Justinianum.

The Memorial Line.

Leg-reg (Pap) Ro-nu-serv: Tabu*lad*: Ed-perp (Adri) Salv-Jul.
Greg = A-Val Herm = Clau-Di: Theo=Const-The: Nov=Theo-Justin.

The first Code of Justinian was published *anno* 529, the Digests *anno* 531, the Institute *anno* 533, the Second COde *anno* 534, the Novells from the year 535 to 558.

The Memorial Line.

Cod-pri*len*: Dig*lib*: Inst*lit*: Co-*selif*: Nove*lil-luk*.

The Bishops who refused their assent to the Ὁμοούσιον.*

Eusebius, bishop of Nicomedia.
Theognis, bishop of Nice.
Maris, bishop of Chalcedon.
Theonas, bishop of Marmarica.
Secundus, bishop of Ptolemais.

The Memorial Line.

Eu-Nico, Theog-Ni, Mar-Chal, Sec-Ptol, Theo-Marmar.

The ten Persecutions *under*

Nero, DOmitian, Nerva, Antoninus Pius, Severus, MAximin, Decius, VALerian, Aurelian, Dioclesian.

The Memorial Line.

Pers=Ne-Do-Nerv-Ant-Pi-Sev-Max-De-Val-Aure-Diocles.

The Electors of Germany

Were the Archbishops of Mentz, Triers, and COlogn, Elector Palatine of the Rhine, the King of Bohemia, the Electors of BAvaria, Saxony, Brandenburg: the Elector of Hanover was added, *Anno Dom.* 1693.

The Memorial Line.

Men-Tri-Co-Rhin-Bohe-Bav-Sax-Branden: Hanover ad *sout.*

The Quinquarticular Controversy, concerning

1. Predestination. 2. Free-will (Liberum Arbitrium). 3. The force of Divine Assistance

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* Ταύτην τὴν πίςιν τριακόσιοι μὲν πρὸς τοῖς δεκαοκτὼ, ἔγνωσάν τε καὶ ἐςερξαν· καὶ ὥς φησὶν ὁ Εὐσέβιος, ὁμοφωνήσαντες καὶ ὁμοδοξήσαντες ἔγραφον· πέντε δὲ μόνοι οὐ προσεδέξαντο, τῆς λέξεως τοῦ ὁμοουσίου ἐπιλαβόμενοι. Εὐσέβιος ὁ νικομηδείας, &c. Socratis *Historia Ecclesiastica.* lib. i. cap. 8.

(Auxilium). 4. Perseverance. 5. The extent of Redemption.

The Calvinian doctrine upon these points, handed from Geneva by the English refugees, and propagated by Cartwright in the Margaret professor's chair at Cambridge, was, at a consultation of several prelates and divines at Lambeth, digested into nine articles, commonly called the Lambeth Articles, and agreed upon N-ov. 10, 1595 [N*az-aloul*] but, by order of Queen Elizabeth, were immediately recalled and suppressed.

The Memorial Line.

Lamb-Art = Cart-N*az-aloul*: Predés-Liber-Auxili-Pers-Red.

The seven Precepts (Septem Præcepta) *of the Sons of Noah are recorded by the Jewish Doctors under the following Titles:*

I. To worship the true God [Cultus *divinus.*]

II. To renounce Idolatry.

III. To commit no murder [Cædes]

IV. Not to be defiled with fornication, &c. [Stuprum]

V. To avoid all rapine, theft, &c. [Furtum]

VI. To administer justice [Justitia]

VII. Not to eat the flesh with the blood [Sanguis]

Such Gentiles as were admitted to the worship of the God of Israel, and the hope of a future life, but were not circumcised, nor yet conformed to the Mosaical rites, being only obliged to the observation of the foregoing precepts, were called proselytes of the gates, in opposition to the proselytes of righteousness, or of the covenant, who differed nothing from the Jews, but that they were of Gentile race. See Lewis's Hebrew Antiquities.

The Memorial Line.

Sept-Præcept = Cul-Idol-Cæd-Stup-Furt-Jústiti-Sanguis.

Misnah, Gemarah, Talmud.

The MISNAh in 6 B-ooks [Misna-BS] contained 63 TRacts [T*raut*] into which the traditions or oral law of the Jews were methodically digested by Rabbi Judáh HAKKADosh in the time of ANtoninus P-ius [Hakad-AnP] As soon as it was published, it became the subject of the study of all their learned men, and the chiefest of them, both in Judæa and Babylonia, employed themselves to make comments upon it; and these, with the Misnah, make up both their Talmuds, *i. e.* the Jerusalem Talmud and the Babylonish Talmud. These comments are called the GEMArah or complement, the Misnah the text; both together the TALmud [Tal = Mís-Gema] The JERusalem TALmud was completed about A.D. 300 [Tál-Jer*ig*] The B-abylonish TALmud about 500, or in the beginning of the sixth century [Tal-B*ug*] This latter is only in esteem among the Jews. See *Prideaux Connection*, p. 328.

The Memorial Line.

Misna-BS-T*raut*-Hakad-AnP: Tal = Mís-Gema: Tál-je*rig*: Tal-B*ug*.

Characteres Arithmetici Græci et Hebraici.

Ab-βé-γi-δo εu-ϛau ζoi-ηk-θou-ιa κéz-λi-μo νu-ξau.
Op-πei ϟou ρá-σe-τi υf-φu-χau, [illegible]-ωμei ϡou.

אb-בé-גi-דo הu-וau זoi חk טou יa כez-לi-מo נu-סau.
עp-פei צou קa-רe-שi תf-ךu-םau ןoique ףei ץou.

The decads and hundreds will be easily distinguished from each other, and therefore only the first figure is added, ל*i* sc. ל=3 *i. e.* 30. ר*e* sc. ר=*e* *i. e.* 200. Pronounce ϟ*ou* kop*ou*, ϡ*ou* San*pou*, ת*f* Thauf, ץ*ou* tsadou.

2

The Ages of Christianity, as distinguished by Dr. Cave, according to what was most remarkable in each Century.

Cent.	I.	Sæculum	Apostolicum
Cent.	II.	Sæculum	G-nosticum
Cent.	III.	Sæculum	Novatianum
Cent.	IV.	Sæculum	Arianum
Cent.	V.	Sæculum	Nestorianum
Cent.	VI.	Sæculum	Eutychicum
Cent.	VII.	Sæculum	Monotheliticum
Cent.	VIII.	Sæculum	Eiconiclasticum
Cent.	IX.	Sæculum	Photianum
Cent.	X.	Sæculum	Obscurum
Cent.	XI.	Sæculum	Hildebrandinum
Cent.	XII.	Sæculum	Waldense
Cent.	XIII.	Sæculum	Scholasticum
Cent.	XIV.	Sæculum	Wicklevianum
Cent.	XV.	Sæculum	Synodale
Cent.	VI.	Sæculum	R-eformatum.

The Memorial Line.

Ap-G-Nov Ari-Nest Eut-Monoth Eic-Phot-Ob Hil-Wa-Scho Wick-Sy-R.

The Division of the Roman Empire out of the Book called Notitia Imperii, said to be written about the Time of Arcadius and Honorius.

The whole empire was divided into 13 Dioceses, under 4 Præfecti Prætorio, and about 120 Provinces contained in them. [Præf=di*bi*=pr*adz*]

1. The *Præfectus Prætorio* Orientis, and under him five dioceses, *viz.* the Oriental, E-gyptian, As-iatic, POntic, and Thracian dioceses. [Or=E-As-Po-Th]

2. The *Præfectus Prætorio* of Illyricum, and

under him two dioceses, *viz.* MAcedonia and D-acia. [Ill=Ma-D]

3. The *Præfectus Prætorio* of ITaly, and under him three dioceses, *viz.* ITaly, ILlyricum, and AFrica. [It=It-Il-Af.]

4. The *Præfectus Prætorio G-alliarum*, and under him three dioceses, *viz.* HIspania, GALLia, and B-ritannia. [*G*=His-Ga-B]

The Memorial Line.

Præ*f* = Di*bi* = Pra*dz*: Ill = Ma-D: O*r* = E-As-Po-Th: It=It-Il-Af: *G*=His-Ga-B.

. . . .

The Dimensions of the Ark and Temple.

The length (LOngitudo) of the ARK 300 Cubits. [Ark-lo-cub*ig*] The BReadth 50 cubits. The height (ALtitudo) 30 cubits. [Br*uz*-Al*iz*]

The length of the TEMple which K. Solomon built for the Lord was 60 Cubits, the BReadth thereof 20 cubits, and the height thereof 30 cubits. 1 Kings, vi. 2. [Tem-Ló*ney*-Br*ez*-Al*ty*] The length of the POrch 20 cubits, the height thereof 120 cubits. 2 Chron. iii. 4. [Por*ez*-*bez*]

Ark-Lo-cub*ig*-Br*uz*.Al*iz*, Tem-Ló*ney*-Br*ez*-Al*ty*, Por*ez*-*bez*.

Computation of the Cost, Vessels, Vestments, &c. of Solomon's Temple.

By Villalpandus' computation of the number of TALents of gold, silver, and brass, laid out upon the TEMple, the sum amounts to 6904.822,500*l.* sterling. [Tal-tem=*souzo-ked-ug*] And the jewels are reckoned to exceed this sum.

Vessels of gold (VAsa AUREA) consecrated to the use of the temple, are reckoned by Josephus 140,000. [Vas-aurea*bbózth*] which, according to Capel's reduction of the tables contained in them, amounts to 545.296,203 pounds sterling. [*lol.enáu-dyt*]

The vessels of silver [VAsa ARgentea) 1.340,000 [Vas-ár*atozth*] are computed at £439.344,000 [*fin-tofth*]

Priests' vestments of silk (VEstes SERICæ) 10000. [Vest-seric*azth*]

P-urple vestments for singers 2.000,000. [*Pem*] TRumpets 200,000. [T*regth*] Other musical INSTRUments 40,000. [Instr*oz*]

Besides these charges, there was that of the other materials, and of 10,000 men per month in Lebanon to hew down timber (SYLVICIDæ) [Sylvicid*az*] To carry burthens (VECTores) 70,000. [Vect*oiz*] To hew stones (LAPIcidinæ) 80,000. [Lapi*ky*] and 3300 overseers (EPIscoPi) [Episcop*tig*] who were all employed for 7 years (ANNIs SEPTem) to whom, besides their wages and diet, Solomon gave a free gift 6.733,977 pounds (DoNum SoLOMonis) [*s-paut-noip*] The treasure left by David towards carrying on this work (RELIQUIT DAvid) 911.416,207. [*nab-oás-dyp*]

N. B. th is left out, as Sylvicid*az* for Sylvicid*azth*, &c. it being impossible to mistake 10,000 for 10.

The Memorial Lines.

Tal-tem = *souzo-ked-ug* : Vas-aurea*bózth*=*lol-enáu-dyt.*
Vas-ár*atozth* = *fin-tofth*: T*regth* : Instr*oz*: Vest-seric*áz* ; P*em.*
An-sept Silvicid*az*, Lapi*ky*, Vect*oiz*, Episcop*tig.*
Don Solomo-*s-paut-noip* : reliquit Dav-*nab-oás-dyp.*

The number of those that returned (REDUces) from the captivity were 42,360 [Redu*fe-tauz*] besides PROSELytes 7337. [Prosel*oitip*]

The particular sums in EZra's CATalogue amount to 29,828. [Cat-èz*dou-kek*]

The particular sums in NEHEmiah's CATalogue 31,031. [Cat-nehe*tazib*] How these accounts are reconciled, *vide* the Index to the Bible.

The Memorial Line.

Redu*fe-tauz*-Prosel*oitip*: Cat-*ezdou-kek*, Cat-nche-*tazib*.

The Silver of them that were numbered of the Congregations was a hundred Talents and a thousand seven hundred and three score and fifteen Shekels after the shekel of the sanctuary, a Bekah for every man, that is, half a shekel after the shekel of the sanctuary, for every one that went to be numbered, from twenty years old and upwards, for six hundred thousand and three thousand and five hundred and fifty men. Exod. xxviii. 25, 26.

The Memorial Line.

Sil=Con=Talg-Shék*apoil*, Bek-*syt-luz*=Shekel*izappu*

Difference of Talents.

	Attic minas.	Att. drachms.
* Syrian Talent contained	15	1500
A Ptolemaic talent	20	2000
†An Euboic talent	60	6000
An Alexandrian talent	120	12000
An Antiochian talent	60	6000
A larger Attic talent	80	8000
A Babylonish talent	70	7000
An Æginean talent	100	10000
†A Rhodian talent	100	10000
A Tyrian talent	80	8000
An Ægyptian talent	80	8000

The Memorial Lines.

Tal-Syr=M*al*: Ptolem=*ez*: Eub=*auz* * Alexan=*bez* & Ant=*auz*.

Att-Maj=*eiz*: Babyl=*oiz*: Ægin=*ag*: Rh=*ag*: Tyr-Ægypt=*eiz*.

I shall conclude with two lines, just to shew how

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† According to some, the Rhodian talent contained but 4500 Attic drachms, and the Euboic but 4000. *Vide Brerewood de Ponderibus et Pretiis*, cap. 9.

by this method may be remembered the year and chapter of any particular statute. Those to whom a hint of this nature may perhaps be thought useful, are best capable of applying and improving it as they shall see occasion.

An act for prevention of FRAUDS and Perjuries 29 CAROL. II. c. 3. [Fraud-Carol*en-t*]

An act against abuses in presentation to benefices (SIMONY) 31 ELIZ. c. 6. [Sim-El*ib-s*]

The bill for first fruits (PRIMITIæ) 26 H-en. VIII. c. 3. [Primit-H*es-t*]

An act for the dissolution of the MONASTeries.
The lesser 27 H. VIII. c. 28. } [Monast-H*ep-ek.*
The greater 31 H. VIII. c. 11. } *ib-ba*]

The Memorial Line.

Fraud-Carol*en-t*; Sim-El*ib-s*; Primit-H*es-t*; Monast-H*ep-ek.ib-ba.*

To remember the several statutes relating to the same subject must needs be more difficult, as there is but one leading syllable for the whole line; but may be done in the following manner:

Some of the principal acts which relate to the poor (PAUPeres) are 43 ELIZ. c. 2. 13, 14 CAR. II. c. 12, 3, 4 William and M-ary, c. 81. 8, 9 WILL. III. c. 30. 9, 10 WILL. III. c. 11. 12 ANN. c. 18.

The Memorial Line.

Paup-El*ot*,*e*, Car*at*,ad, Wi-M*t-cib*, Wil*k*,*iz.n*,*ab*. An-*ad-bei.*

LOWE'S MNEMONICS.

DR. WATTS, in his Essay on the Improvement of the Mind, near the conclusion of the 17th chapter, where he more especially treats of Improving the Memory, makes the following observation:

"Dr. Grey, in his book called Memoria Technica, "has exchanged the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, "for some consonants, b, d, t, f, l, s, p, k, n, z, and "the vowels a, e, i, o, u, y, with several dipthongs, "and thereby formed words that denote numbers, "which may be more easily remembered: and Mr. "Lowe has improved Dr. Grey's scheme in a small "pamphlet called MNEMONICS DELINEATED, whereby "in a few leaves he has comprized almost an infinity "of things in science and common life, and reduced "them to a sort of measure like Latin verse."

Under sanction of the great authority above quoted, the publisher of the present edition has annexed Mr. Lowe's tract, which the author originally intended both as a supplement to and an improvement of Dr. Grey's method; accordingly asserting in his advertisement, that "most of the articles are what per- "haps did not occur to Dr. Grey; and the rest are "reformed to good purpose, particularly those of "Weights, Coins, and Measures, of which I have "given a full account in less than eight pages, "whereas the Doctor's, though very defective, "amounts to twenty-eight."

The two schemes are now before the reader, to use whichever seems best; and though Mr. Lowe's is in some instances little more than a repetition of Dr. Grey's plan, yet it has been thought adviseable to

reprint the whole at full length, and even to follow his peculiar mode of spelling, as most consistent with brevity. It may also be necessary to premise, that Mr. Lowe's astronomical calculations are according to the old style, and his geographical divisions are as they existed in the year 1737, the time when his pamphlet was first published; which disagreement with the present period it is hoped the industry and sagacity of the learner can easily rectify, by composing new technical words, which may be more easily remembered than those formed by another; these works being originally designed more as specimens of what might be done by attention, than as complete sets of tables in the various branches of learning and science.

THE KEY.

Directions for the better learning to remember. Figures or Numbers exprest by Letters.

a	e	i	o	u	au	oi	ei	ou	y
1	2	3	4	5	6	7	8	9	0
b	d	t	f	l	s	p	k	n	z

g 100. th 1,000. m 1.000,000.

r denotes fractions, as follows: ,ro $\frac{1}{4}$: ,iro d,eri 2 $\frac{3}{4}$: ,rag ,01.

ARITHMETIC.

Arithmetical Characters.

+ and: — less: × multiplied-*into*: ÷ divided-*by*: = is, gives.

The Division of the old Roman AS, *viz. any Integer, or Whole.*[2]

Uncia, Sext. Quă. Triens. Quinc. Sem. Sept. Bes. Dŏdră. Dext. Deu.

AS, parts	12	Semissis	6
Deunx	11	Quincunx	5
Dextans	10	Triens	4
Dodrans	9	Quadrans	3
Bessis	8	Sextans	2
Septunx	7	UNCIA	1

COINS.

Coins reduced to Farthings.

1 E.][3] Sh-*ok.* Cr-ĕ*fy.*] N-*idz.* Ange-*okz.* M-ă*ufy.* Gui-*bzyk.* Car-*băzo.* Jac-*beg.*

2 H. Ger-*f*] Bĕ-*lĭ.* Sh-*abz.* *Man-*sups.* †Tal-ĭ*deith feil*] Sh-*aplĕ.* Tal-*um dusth.*

3 G. Lep-,*tărĭtau.* Dĭchăl-a,*prĕf.* ŏb-*u,rau*]*Dr-*ib.* ‡Stătĕr-*ado.*

4 R. T,*oipŭrăth.* §As-*t,raz*] Ses-*p,irf.* V-*al,*rĕ. Dĕn *ib.* Sp-*oĭl.*] Aŭr-*oipu.*

Proportions.

* DRACHM] Hĕb-ĭ*s.* Att-*tĭ.* Alex-*oid*--MIN] Att-*tig.* Ităl-*ekeiz.*

‡ TAL] Att-*boukth.* Băb-ĕ*tath.*] Att-ĭ*bauth eig.* Bab-ĭ*m ăunsth.* R-*akyth.*

† STATER (gold) Att-*poil.* Cyz-Phĭl-Alex-*dap.* Croes-Dări-*buly.*

§ As weighd Ouncĕs-*ăd,* U-C-*bouz*[4] : *e* ; *fouz* ; *a* ; *lĭp* : -*ăre* ; *leis.*

MONEY.

Sums of Money, or Money of Account.

5 (E) Penn-*f.* Gr-*at.* Pound-*ousy.* (G) TAL-MIN. Ægĭ-*g=ubss.* [5]Ant-*sy=g.*

6 Bab-oiz=tuns. Pt-az=aztĭ. Sўr-al=poil. Tyrian-eiz=fatt.
7 (R) SESTERCE——tŏ-ath, duo, bini nummi——tŏ-am, duo, bina,
8 —stertia; or millia sestertiûm,——above, by the adverbs, as follows:
9 Bis sestertiûm, or bis; understanding millia centum (or centena).

6 Abbreviatures explaind.

Æginéa mina, talentum (lin.) 5. Alexandrína drachma, *; stater, +. Angel, 1. *Antiochica* min. tal. 5. As, 4. §. Attica drachma, *, mina, *, stater, +; talentum, +. Aureus denarius, 4. *Babylonica* min. tal. +. Bekah, 2. Carolus, 1. Crœsius stater, +. Crown, 1. Cyzicénus stater, +. Daricus stater, +. Denarius, 4. Dichalcos, 3. Drachma, 3. Gerah 2. Groat [c], 5. Guinea, 1. Hebraica drachma, *. Jacobus, 1. Italica mina, *. Lepton, 3. Maneh, 2. Mark, 1. *Mina*[c], *, 5. Noble, 1. Obolus, 3. *Penny*[c], 5. Philippicus stater, +. *Pound*, 5. *Ptolemuica* min. tal. 6. Románum talentum, +. *Sestertium*, 7. Sestertius, 4. Shekel, 2. Shilling, 1. Sportula, 4. Stater, 3. *Syria* min. tal. 6. *Talentum*[c], 2, 5. Teruncius, 4. *Tyria* min. tal. 6. Victoriátus, 4.

6 Synonyms and Equivalents.

Æs, as. Assarium, as. *Attica minor mina*=antiochica. *Attica major mina*=syria. Bigátus, denarius. *Centussis*, 100 asses. Chalcos, ½ dichalchos. *Decussis* [c], 10 asses. Didrachmon, 2 drachmæ. Diobolon, 2 oboli. *Dupondius* [c], 2 asses. *Eubœa mina*=antiochica. Hemiobolon, ½ obolus. Laureat, carolus. Libella, as. *Libra* (or libra pondo) = mina attica. *Mna*, mina. *Nonussis*, 9 asses. Nummus, sestertius. Obolus, ½ noble. *Octussis*, 8 asses. Pentadrachmon, 5 drachmæ. *Pondo*, v. libra. Quadrans,

$\frac{1}{4}$ as, $\frac{1}{4}$ noble. Quadrigátus, denarius. *Quadrussis* c, 4 asses. Quinarius, victoriátus. *Quinquessis* c, 5 asses. *Rhodia*=æginea. Sembella, semilibella. Semilibella, $\frac{1}{2}$ libella. *Semuncia*, $\frac{1}{2}$ uncia. Sescuncia, 1 $\frac{1}{2}$ uncia. *Sextans* c, $\frac{1}{6}$ as. *Sextula* c, $\frac{1}{6}$ uncia. Solidus, aureus. Tetradrachmon, 4 drachmæ. Tetrobolon, 4 oboli.. *Tressis*, 3 asses. *Tricessis*, 30 asses. Tridrachmon, 3 drachmæ. *Triens* c, $\frac{1}{3}$ as. Triobolon, 3 oboli. *Vigessis*, 20 asses. *Uncia* c, $\frac{1}{12}$ as.

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1 N.B. The several *coins*, *measures*, and *weights*, being reduc'd to the lowest denominations, the memorial verses answer all the purposes of the largest tables: (1) The difference of any two terms being known by subtraction a: and (2) How many of any make one of another, by division b.——e.g. (a) What is the difference between a *Shilling* and a *Shekel?* Answ. (Sh-*abz*) 110 — (Sh-*ok*) 48= 62 q. i c. S 2 : 3 : 2 — S 1 : = S 1 : 3 : 2, the shekel more than the shilling. (b) How many *Spans* make a *Fathom?* Answ. (Fath-*oid*) 72 ÷ (Spa-*n*) 9 = 8. Accordingly, if it be askd, *What is a fathom?* (and so of any other) the answer may be made, the same way, in any of the prior denominations: e. g. 24 palms, or 6 feet, or 4 cubits, or 2 yards, or 1 $\frac{1}{5}$ pace, &c.

2 Any whole was called AS, and 1 twelfth of it UNCIA [whence our terms of *ounces* for weight, and *inches* for length]. The several numbers of those unciæ (between 1 and 12) —— were denominated, in order, as follows in text: viz. Sextans (i.e. $\frac{1}{6}$) 2 Quadrans ($\frac{1}{4}$) 3, &c. —— and express their manner of reckoning *Interest* of money: thus *usuræ asses* [centesimæ] was 1 per month [12 per year] per cent. (suppose aurei, or pounds: *deunces*, 11 twelfths per month, and so on to *unciariæ*, 1 twelfth per month [1 per year] e. g. 20d. per month, 20s. per year

3 Of the three apartments distinguisht by brackets, in the 1st are Brass- or Copper-; 2d, Silver-; 3d, Gold-coins. ———NB. (1) Sh-*ok* (as appears by the Abbreviatures explaind underneath; and by the key above) signifies *Shilling* 48: i e. a shilling is 48 farthings; and so of the rest. (2) *y* (the memorial letter) may be pronounc'd *wee* or *wi*, to distinguish it from *i*: e. g. Cr-*efy*, as if it were Cr-*efwi*.

4 i.e. in the year (*Urbis Conditæ*) from the building of the city of Rome, 190.——*e,foux*; i. e. U.C. 490, when the

Punic war had exhausted the treasury, it weighd but 2. and so of the rest.

5 i.e. the Æginean *mina* was (ubss) 5656 q: (g) 100 of which made the Æginean *talent*. and so of the rest.

6 N.B. In these lists—those in *Italic* are moneys of account, the rest, coins.—The *Figures* and *Marks* refer to the corresponding memorial verses.

(c) N.B. There are also COIND Half-guineas, Seven-shilling pieces, Half-crowns, Three-pences, Two-pences, Half-pennies; and such as are distinguisht by a superior [c].

MEASURES.

Cubic Measures reduced to Pints.

1 { Quar-*d*. *Gal-*k*. R-*afŏ*. Bar-*eld*. Ti-(WINE) *tls*. H-*uzf*. P-*aŭpĕ*. B-*athei*. T-*ethbau*.

2 { Firk-*boid*, *ásf*.[1] Kĭl-ä*bek*, b*uff* (BEER & ALE) Bar-b*deĭk*, ă*dus*. Hŏg-*ălad*, b*ups*.

3 { Pe-*bs*. Bŭ-*so*. Str-*aek*. Coom-*dus* (DRY) Se-*ŭbĕ*. Ch-*etzo*. We-*ithpĕ*. Lă-*lady*.

4 { (*liq*.) C-,*urei*. L-*irŏ*. Căb-*i*. H-*az* (H) Stăh-*dў*. Bath-*sў*. Hŏm-*auzu* (-*ud*.

5 { Cab-,*durau*. Gŏm-,*ŭraz*. Se-*boi* (DRY) Bă-*lă*. Le-*dlaŭ*. Hŏmer-*lat*.

6 { Coch-,*rădў*. Ch-*rauz*. Myst,*rok* (G) Conch-,*raf*. Oxybă-,*reĭ*- Metr-*eis*.

7 { Coch-,*rădў*. Choen-*brĕ*. Mĕdim-*pĕ* (DRY) Cў-Ox-Cŏtў-Xest-as the Roman.

8 { Quart-,*rŏ*. Sĕ-*a*,*rl*. Cŏ-*p*. Ur-*ek*+*ră* (R) Quă-dr-*up*. Cŭlĕ-*bafp*. Lĭ. Cў. Ace. Hem.

9 { Lig-,*rok*. Cy-*rad*. Acet-,*reĭ*. Hĕm (DRY) in,*rĕ*. Sĕ-*a*,*rŭ*. + Mod-*as*,*re*.

10 { *GALLŎN cŏntains inches (dry) *doid*,*rŏ* [2]: (beĕr -*ekĕ*: (wine) *eta*[2].

11 { +POTTLE Quărts (dr-) *i* (liquid)-*e*— + MODI. Pints (liquid)-*an* (dry)-*bau*,*ro*.

Abbreviatures explaind.

Acetabulum (lin.) 9, 8. Barrel, 1. Bath, 4. Bushel, 3. Butt, 1. Cab, 4. Caph, 4. Cheme, 6.

Chaudron, 3. Chœnix, 7. Cochlearion, 6. Concha, 6. Congius, 8. Coomb, 3. Culeus, 8. Cyathus, 9. Firkin, 2. Gallon, 1. Gomer, 5. Hemina, 9. Hin, 4. Homer, 4; 5. Hogshead, 1, 2. Kilderkin, 2. Last, 3. Letech, 5. Ligula, 9, 8. Log, 4. Medimnus, 7. Metrétes, 6. Modius, 9, 11. Mystron, 6. Oxybaphon, 7. Peck, 3. Pottle, 11. Puncheon, 1. Quadrantal, 8. Quart, 1. Rundlet, 1. Seah, 4, 5. Seam, 3. Sextarius, 8, 9. Strike, 3. Tierce, 1. Tun, 1. Urna, 8. Wey, 3.

Synonyms and Equivalents.

Amphora, quadrantal. Amphoreus, metrétes. Cadus, metrétes. Carnock, coomb. Chos, congius. Coron, homer. Cotyle, hemina. Ephah, bath. Lingula, ligula. Omer, homer. Oxybaphon, acetabulum. Pipe, butt. Quarter, seam. Quartarius, ¼ sextarius. Semimodius, ½ modius. Xestes, sextarius.

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1 i. e. A *Firkin* (1) of Beer=72 pints. (2) of Ale=64 pints. and so of the rest.

2 By act of parliament, in 1697, the gallon contains only 268 4/5 inches.

3 By experiment, made in 1688, it was found to contain only 224 inches.

Long Measures reduced to Inches.

1 { Nail-*d,ro*. Pal-*t*. Hăn-ŏ. Spa-*n*. Foot-*ad*. Cŭbĭ-*bei*. E (f l) ĕ*p*(eng) *ol*.

2 { Y-*is*. Pa-*sy̆*. Fáth-*pe*. Ro-*bouk*. Furl-*oindy̆*. Mĭ-*silsy*. Le-miles 3.

3 { H. Pal-*f*. Sp-*ad*. C-*ef*. F-*ons*. Ez-*bŏf*. Ar-*and*. Schoen-*andy̆*. Stă-*naug*. M-*ousth*.

4 { G. Dōr-*f*. Lĭch-*ăz*. Orth-*ab*. Sp-*ad*. Pygm-*ak*. Py̆-*dz*. O-*nau*. St-*naug*. M-*oiskyz*.

5 { R, Unc-*ă,ri*. Pal-*f*. Pe-*bs*. Palm-dy̆, Cŭo-*ef*. Gră-*ky̆*. Pass-*ky̆*. Stă-*byth*.

Proportions.

6 { Line-*be*. Băr-*i*. Digit, Inch (Heb. Gk. Rom.)
{ *nad* : ,*pulŏ* : *peldu*[1]. [M[2] -*eizth*.

7 { Foot—Eng-*ath*. — Grĕk-*ăzyp*. — [3] Rom (coss)
{ *naup* (st) *oupĕ* (vĕs) *oukau*.

Abbreviatures explaind.

Arabian pole, 3. Barley-corn, 6. Cubit=pygme, pygon, pechus 1, 3, 5. Digit, 6. Doron=palm, 4. Ell (flemish, english) 1. Ezekiel's reed, 3. Fathom 2, 3. Foot=pous=pes 1, 5, 7. Furlong=stadium 2, 3, 4, 5. Gradus, 5. Hand, 1. League, 2. Lichas, 4. Line, 6. Mile=milion=miliáre 2, &c. Nail 1. Orguia, 4. Orthodóron, 4. Pace=passus 2, 5. Palm=doron 1, 3, 5. Palmipes, 5. Passus=pace, 5. Pes=foot, 5. Pygme, 4. Pygon, 4. Rod, 2. Schœnus, 3. Span=spithame 1, 3, 4. Spithame =span, 4. Stadium=furlong 4, 5. Uncia, 5. Yard, 2.

Synonyms and Equivalents.

Ammah, cubit. Aulos, furlong. Chebal, schœnus. Cubit (lesser) pygme (greater) pechys. Dactylodochme, doron. Diaulos, 2 stadia. Dochme, doron. Gomed, span. Kaneh, Ezekiel's reed. Measuring-rod, schœnus. Mili-are,-on : mile. Palæste, doron. Pathil, schœnus. Pechys, cubit. Pereh, rod. Pole, rod. Pollex, uncia. Pous, pes. Tophach, palm. Ulna, cubitus. Zereth, span.

. . . .

1 N.B. The *Digit* is sometimes divided into 4 *grains*; the *Line* into 6 *points*.

2 N.B. *A Sabbath day's journey* is reckond to be 730 paces: 6 of which made the *Parasang*, 48 a *Day's journey*.

3 i. e. The proportion of the Roman foot to the English (divided into 1000 parts) is here exprest, as found——on the monument of *Cossutius*——on that of *Statilius*——on a congius of *Vespasian*.

Square Measures reduced to Square Feet.

E. Yar-*n*. Pace-*du*. Pŏle-ĕpe,*rŏ*. Roŏd-*azkouz*. Acrĕ-ŏ*tusy*.
G. Plethron——*azasf*. Aroura, the half: but Ægyptian——*itdaun*.
R. Juger-*esouty̆*. Cli-*tisaŭ*. Vĕ-*nily̆*. (mĭn) A-*fŏkeĭ* (qu) *atfauz*.

Abbreviatures explaind.

Actus minimus, quadratus, 3. Clima, 3. Jugerum, 3, Versus, 3. Yard, 1.

MULTIPLICATION TABLE.

from 7 by 12 — P-oi,*on*. P-ei,*us*. P-ou,*si*. K-ei,*so*. K-ou,*pĕ*. N-ŏu,*eia*. F-ad,*fei*. L-ad,*sy̆*. S-ăd,*oid*. P-ad,*ko*. K-ad,*ouău*, N-ad,*azei*. — 7×7 =49

NUMERICAL LETTERS.

1 2 R. In Numerals] A less number, *afore*, Abates [1]; *after*, Encreases [2]. I-*b*. V-*u*. X-*az*. L-*uz*. C-*azy̆*. D-*ŭyz*, M (CIↃ [3]) *ath*; hence (CCIↃↃ) *byth*,

3 4 H. א-*b*. י-*az*. ק-*ag*[4]—ט״ו-*bu*[5]—from-*ug* by דםןףץ to *ouzy*[6] [cccIↃↃↃ *ath* by the Units[7]: but oftner by אלף, prefixing the numbers [8] [*azyth*.

5 6 G. α-*b*. ι-*az*. ρ-*ag*[4]. ϛ-*au*. (ϙ) koppă-*ny̆* (ται) sanpi-*ouy̆z* [9]. ά (α α α)-*uzyz* I-*b*. Π-*ŭ*. Δ-*ăz*. H-*ag*. X-*ath*. M-*azth*. Π-multiplies others inscrib'd in't [10].

....

1 e.g. IV 4, IX 9, XL 40, XC 90.
2 e.g. —— VI 6, XIV 14, XIX 19, XXIX 29 —— יא 11, יב 12: קא 101, קב 102——ια 11, ρα 101, &c.

3 Formd, in current writing, from M: part whereof, united, (viz. IↃ) became D 500. hence IↃↃ 5000, IↃↃↃ 50000.

4 i. e. Units, tens, hundreds, begin from the letters here specified; and are to be reckoned on, in order, from them. e.g. α 1, β 2, γ 3, &c. ι 10, κ 20, λ 30, &c. ρ 100, σ 200, &c.

5 Instead of יה, being the ineffable name of Jehovah.

6 e.g. ך 500, ם 600, ן 700, &c.

7 Before the letters expressive of hundreds; as, אדלר 1531: very seldom otherwise; אע 1070.

8 e.g. אלפיים 2000, גאלפים 3000, לאלפים 30000, &c.

9 The various figures and names of these numeral characters, see in my Table of Greek characters.

10 e. g. Δ (10) inscribed in Π (5) is |Δ| (50.)

PRACTICE.

1. *If one* [1]? the sought *into* Price[2], or its factors [3]; or *by* Aliquot parts[4]. and, by the Aliquots of Fractions of Sought (if any) *divide* Price [5].
2. *What'll One* [6]? the Price *by* Commodity [7]; but, if too large, *by* its factors [8].

. . . .

1 i.e. In questions, where the conditional term is 1: as, when we say, "*If one* cost so much, what will so much cost?

2 i. e. Multiply *the* question-term, or thing *sought*, *into* the *price*, &c.——e. g. *If one* costs 10s. what will 20 cost? &c. Answ. 20 (the thing sought) ⋈ 10 (the price)=200s. i.e. 10l.

3 viz. when more commodious.———e. g. *If one* cost 12 | 6, what will 14? Answ. The factors of 14 being 2 ⋈ 7; say 2 ⋈ 12 | 6=25s: then 7 ⋈ 25s.=175s. i.e. 8l. 15s.—— N.B. If the multiplicator be not resolvable into factors, take those that come nearest it, and add the price for the odd one, or multiply it by what the factors want of the multiplicator.

4 Divide it *by* the *Even parts* of the denomination,* in which you would have the answer.—e.g. *If one* cost 12 | 6,

what will 14? Answ. 10s. being the ½ of 1l. and 2 | 6 (which makes up the 12 | 6) the ¼ of 10s : say 2 in 14= 7l. then, 4 in 7 (the quotient of 14 by 2)=1; and there remains 3l. which, in the next inferior denomination (viz. Shillings) is 60, then 4 in 60=15s.

Thus				14			14 pds. pks. &c.				
divided by	s	10 ½	gives	7	-		10	2	gives	7	-
		2					2	5		1	8
	d	6 ¼	60	1	15		6	4	60	-	7
		S 12 : 6		L 8 : 15			S 12 : 6			L 8 : 15	

5 As in the following example:

		C qr lb			l s d	
		84 3 11	at		1 1 10	
1 l. s 1.=21 s			qr	2½	- 10 11	
Aliq. nols of 1s		84		1½	- 5 5	2
		168	lb	7¼	- 1 4	1
d6¼		42		4½	- - 9	1
4⅓		28				
q3. lb11. s 18:6				3q. 11lb. aliq. of fract.	18 6 - pr. of fract.	

In all.. . 1852:6 The answer: which, being halv'd gives - { 92 : 12 : 6; the price of C 84 : qr 3 : lb 11.

6 i e. In sums, wherein the Question-term is 1; as when we say, "if so much cost so much, *What'll one cost?*"

7 e.g. If 12 cost 10 | 6, what will 1? Answer, 12 in 10 | 6 I cannot have: but 12 in 10 × 12 (to reduce it to pence)=120+6=126: then 12 in 126=10d. and 6 remains; which multiplied into 4 (to reduce it to farthings) is 24: then 12 in 24=2 q.

Thus { in s 10 : 6 : -
12 - 10 2 | or, by the factors of 12, viz.
2 × 6, or 3 × 4; as in the following:

8 The foregoing example will stand

Thus	in s 10 : 6 : -	in s 10 : 6 : -
	2 5 3 -	3 3 6 -
	6 10 2	4 - 10 2

So the answer is found more easily than by dividing by 12; much more so it will be, when that number is higher.

RULE OF THREE.

All Questions in it answerd* (1) *by one stating* (2) *the same way.

(1) CONDITIONAL in one line: and, opposite, the terms CORRESPONDING:

(2) -DEND is the -Ducing of one *into* -Duc'd of the other; the Rest-SOR [1].

N.B. *No -Duc'd:* the facit of one line divide by that of the other [2].

. ...

1 i. e. *The producing* [a] terms *of one* line multiplied into the *produc'd* [b] *of the other,* give the diviDEND; and *the rest* of the terms multiplied together, give the diviSOR: the Quotient falls to the blank[c].——(a) *Producing* terms are such as jointly produce any effect. e. g. whatever is considerd as a *cause*, with the adjuncts of *time, distance, measure, &c.*——(b) *Producing* terms are such as are connected with the others under the character of *price, purchase, produce, gain, loss, interest, advantage, value or quantity of work, &c.*——(c) e. g. At the rate of 6 per cent. per ann. what is the interest of 200l. for 18 months? Answ. The terms being stated, as they offer (without any other regard than Which are conditional, and Which imply the question) Thus

Interest	Principal	time
6l.	100l.	12 m.
	200	18

or in any other order agreeable to the directions in the rule, say "6 (the produced term of one line) × 18 × 200 (the producing terms of the other) =21600 (for the dividend): And (the rest) 100 × 12 = 1200 (for the divisor). Then 21600 ÷ 1200=18, the answer; viz. 18l.

2 i. e. If there be *no produc'd* term (as generally happens in the single rule of three inverse) *divide the facit, &c.*——e. g. How much stuff, yard-broad, will line 10 yards of cloth, yard-and-quarter broad? The terms being stated thus:

broad	long	
4 qrs		say 5 × 10 = 50
5	10 yard.	and 50 ÷ 4 = 12$\frac{2}{4}$.
		i e. 12 yards and $\frac{2}{4}$ or $\frac{1}{2}$.

SUBTRACTION

May be more commodiously performed by *Addition*; as in the next article.

TABULATING.

To multiply and divide by Addition only.

1. Twice-double-Multiplicand facits † every multiplicator. †*gives the f. of.*
2. Tabulate Divisor : Quote next digit-under : Subtract by Addition.

. . . .

		Multipli-cand	*calor*	
Digits.	1	98765	× 768	
	2	197530	(1)	
	4	395060		
		——	*by*	
Facits.		790120	8	*Divisor.*
		592590	7	
		691355	6	
		——	(II)	*Digits.*
Dividend.		75851520 ÷	768	1
		673794	1536	2
		5898	2304	3
		43.	3072	4
Quotient		(III)	3840	5
		98765 ÷ 968	4608	6
		1929 1936	5376	7
Quotient:		102	6144	8
		—— ——	6912	9

1. In the MULTIPLICATION-sum (I) the facits of the multiplicand *twice doubled*, are, as they stand against the digits 2 and 4. Then, To multiply the multiplicand——into 8 (the last figure of the multiplicator) double the facit of the digit 4 ——into 6 (the 2d figure, &c.) add the facit of 4 to that of 2 (=6) ——into 7 (the next figure, &c.) add together the facits of 1, 2, 4 (=7) placing each of them, as in the common method of multiplication.

2. In the DIVISION-sum (II) (1) *Tabulate the divisor*, as in the example, viz. against the digit 2, by adding the divisor to itself; against 3, by adding together the totals of 2 and 1; against 4, by adding the total of 2 to itself, or that of 3 to that of 1; and, in like manner, in the rest, by adding together the totals of any two or more digits, equal to the digit whose total is sought. Then, (2) *Quote* (or, for the quotient, take) the *digit* against the total *next less*, or *under* the first corresponding figures of the dividend. viz. 7585. Then, instead of subtracting, according to the common method, the facit of the divisor by 9 (viz. 6912) from (7585) the corresponding figures of the divi-

dend (3) *Subtract by addition*, and say [not, 2 from 5, and there remains 3; but] 2, and (so much as will make 5, viz.) 3 is 5: then 1, and (as much as will make 8, viz.) 7 is 8: then 9, and [what will make 15 (since 9 cannot be taken from 5) viz.] 6 is 15[a], then 1, that I borrow, and 6 is 7: and so on.———In the Division-sum (III) it appears that——All the tabulating necessary to find the quotient, is only to double the divisor: for, the total next less than (the 1st dividend) 987, is 968; therefore quote 1: then (the 2d dividend) 196 has no total less; therefore quote 0: then the next total less than (the 3d dividend) 1965, is (the 2d total, viz.) 1936; therefore quote 2. ——— And, in like manner, may be tabulated any sum, by steps, as there shall be occasion.

(a) N.B. 15, being the last sound in the mouth of the operator, does more readily and certainly remind him of what he borrowd, than in the common way of subtraction; which is no small advantage to this method.

WEIGHTS.

Troy Weight, for Gold, Silver, Jewels, Grains, and Liquors.

Monyers reduc'd to Blanks.

1 Mon. Pĕrĭt-*ef*- Droit-*okÿ*. Mīte-*abth*-*ŭdÿ*. Grain-*dizozy*.

Goldsmiths and Apothecaries Weight reduc'd to Grains.

2 (Gold,) Căr-ŏ[1]. Pen-*dŏ* (Pŏ.) Scrup.-*dÿ*. Drăm-*auz*. Ounce-*okÿ* Pŏ-*loisy*.

Averdupois Weight, for Baser-metals, Bread, Mercery, Grocery, &c.

Wool, reduc'd to Pounds.

3 Clove-*oi*. Stone-*bŏ*. Tŏd-*ek*. Weigh-*beid*. Sack-*tauf*. Last-*fisei*.

Other Things.

4 Pound-ounce-*as*. Hun-póunds-*abe*. hún-Fother-*án-are*: Tun-*ez*.

Hebrew Weights, reduc'd to Grains.

5 Zura-*lf*. Bek-*azei*. Shĕk-*ĕbei*[2]. Măn-*ĕbeizy*. Tăl-*amnyth*.

Greek and Roman Weights.

6 { Lens,*kŭrăbe*. Lept-*aurek*. Chalch-*ă,rĕ*. Sil,*t,rĕk*. Ob-*ou-trek*. } 6

7 { Script-*ak,traf*. Dra-*lf,ouraf*.—Sext-*oid,aurp*. Sicil-*azn,erp*. } 7

8 { Duell-*bol,uroi*.——Unc-*fip,roi*. ——Libra-*lefu,lroi*. } 8

Proportions.

9 GRAINS English-*bif,re* make French-*alei*, Dutch-*apou*.

10 OUNCE has grains Avĕr-*ofei*, Troy-*fouz*[3]: as *eiy* to *oii*[4].

11 POUND Aver-heavier than Troy by 2 ounces, 4 drams, and 2 scruples.

Abbreviatures explaind.

Bekah, 5. Carat, 2. Chalchos, 6. Drachma, 7. Duella, 8. Hundred-weight, 4. Lepton, 6. Maneh, 5. Obolus, 6. Penny-weight, 2. Pound, 2. Scriptulum, 7. Scruple, 2. Sextula, 7. Shekel, 5. Sicilicus, 7. Siliqua, 6. Talent, 5. Uncia, 8. Zuzah, 5.

Synonyms.

Gramma, scruple. Keration, siliqua. Lens, grain. Litra, libra. Quintal, hundred-weight. Sitarion, grain.

....

1 N.B. The *Grains*, us'd in weighing *Diamonds*, are somewhat lighter than those us'd in gold, &c.

2 i.e 218, according to Bp. Cumberland: 268, according to father Mersenne.

3 So that the averdupois-ounce is less by 42 grains than the troy-ounce; which amounts to near a 12th part of the whole.

4 i.e. 73 ounces-troy make 80 ounces-averdupois.

ASTRONOMY.

MARCH.

The 1st Day, to find on what Day of the Week it happens.

1 The year, more 2 and even-4th, divide by 7: [given
2 By what rĕmains (fŏr 0 sat. 1 sund. ănd-sŏ-on) it is

E.G. *Ann. Dom.* 26 + 2 + 6 (its even 4th) = 34 ÷ 7, remains 6: i. e. friday; accounting saturday 0, sunday 1, monday 2, &c.——*Before Christ*, reckon Backward; viz. sunday 1, saturday 2, and so on to monday 0. e. g. Bef. Ch. 7 + 2 + 1 (its even 4th) = 10 ÷ 7, remains 3; i.e. friday.——Of the other months to find the 1st day, and consequently what day of the week any day is; V, Signs,

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MONTHS,

The Number of Days in each, with the Days of the Nones and Ides,

Ap Sĕ Nŏ June-*iz*[1]: Mar Mă Jŭl Oc, NO-*p*, ID-*al*[2]; in the Rest, *l*..*at*[3].

1 February, it is well known, has 28 (in the leap-years 29) the rest 31.

2 i.e. The *Nones* are on the 7th day, the *Ides* on the 15; in these 4 months.

3 i.e. The *Nones* are on the 5th, the *Ides* on the 13th: in the rest.

MOON.

Cycle and Epact.

Golden's remainder of year-more-1, divided by 19 [1].
Epact's the cycle into *ab* : above *iz* by *iz*, the remainder [2].

Change and Age.

New's the remainder of month-from-march and epact, less *iz*, *auz* [3].
Ap. Se. No. Jun. less *en*——For Jan. Mar. *o*. Feb. Apri. 1 add.
Full's 15 days from the change—Waining, east; Growing, west is enlighten'd [4].

Rising and Setting.

At Sun-set, sets *New*, rises *Full*; and, each day, minutes *ub* more.
Shining (in Waining) Subtract (in Encreasing) Add * to Sun-rise, -set.

Southing and Tides.

Southing's the age into *ok*, by 60: from *al*, the excess take [5].
High-water at London-bridge: Two hours and a half after Southing [6].

----

1 e.g. 1737 + 1 = 1738 ÷ 19 = 19. remainder 9, for the cycle, or *Golden number.*

2 e.g. 9 (the cycle) × 11 = 99 ÷ 30 (as being above 30) = 9 : remainder 9 for the epact.

3 e.g. May 20 (1737) What is the moon's age? Answ. 3 (the number of the month from march, inclusively) + 9 (the epact) = 12 — 10 = 18 : the day of the new moon, when it is said to change. So the moon, on the 20th of may, is 2 days old.

4 i.e, The Horns are turnd, in *Decreasing* (from the Full) West-ward; in *Encreasing* (from the New) Eastward.

5 e.g. April 15 (1737) When comes the moon to the meridian? Answ. The moon's age is 26: the excess above

(al) 15, is 11. Then 11 × 48 = 528 ÷ 60 = 8 h. 48 m. for the Southing.——For the readier working, the rule may be thus exprest: "*Age into* 4, *by* 5: *into* 12 *the remainder gives minutes.*" e.g. 11 × 4 = 44 ÷ 5 = 8 h: remainder 4 × 12 = 48',

6 e.g. Apr. 15 (1737) the moon Souths at 8 h. 48'. Then 8 h. 48', + 2 h. 30'. = 11 h. 18'. (N.B.) If the total amounts to more than 12; the excess shows the hour.

THE 12 SIGNS

or Portions of the Zodiac, nam'd from Constellations once in them: their Names, Characters, and corresponding Months; with a Key to find the Sun's Place on any Day[1]*; and on what Day of the Week the 1st Day of any Month happens*[2].

1	Ar	ma	*n*[1]	*ă*[2]	♈	Aries
2	Taur	apr	*ou*	f	♉	Taurus
3	Gĕmī	may	*k*	s	♊	Gemini
4	Cance	jún	*p*	e	♋	Cancer
5	Lĕ	júl	*p*	f	♌	Leo
6	V	au	*p*	p]	♍	Virgo
7	Líb	se	*p*	ĭ	♎	Libra
8	Sc	oc	*s*	ŭ	♏	Scorpio
9	Să	no	*p*	*ă*	♐	Sagittarius
10	Că	de	*k*	t	♑	Capricornus
11	Aquă	ja	*n*	s	♒	Aquarius
12	Pīsĕ	feb	*ba*	d	♓	Pisces

....

1 The method is this: To the day of the month (+11 for the old style) add the number signified by the numerals *n*, *ou*, &c. the Sun (— 30, if above 30) is in the degree of the sign corresponding to the day of the month. E.G. Feb. 10 + 11 (for the old style) + 11 (for the numeral *ba*) =32—30=2° of ♓.

2 Thus: From the day on which March 1st happens (V. March) for any other month, count forward so many days as are signified by the numerals *a*, *f*, &c. E.G. Mar. 1st, 1737, was tuesday: therefore Apr. 1st [counting (f) 4 onwards, tuesday being one] is friday: and, consequently, the

8th, 15th, 22d, 29th, are fridays; whence may be known the rest. [N.B. Jan. and Feb. are reckond from Mar. of the preceding year.

SUN,

The Time of its rising each Day.

1 Jăn-*o*[1]. 7 Febr-*ei*. 6 Mar-*bȳ*. 5 Apr-*ou*. 4 M-*as*†.
4 Júl-*p*. 5 Aug-*at*. 6 Sept-*ad*. 7 O..*bc*. 8 N-*al*†.
†Jun-d*a*, *the* Longest, *i fi*[2]——the Shortest, *ei boi*,
Decem-*da*‡

For the intermediate Days:

Sought, into 60, by All, gives *Min.* fewer 1st line, more 2d[3].

The Time of its Setting, each Month, &c.

Setting's the complement of rising to 12; and, doubled, the day gives[4].

Cycle and Dominical Letter.

Cycle's the remainder of year-more-9 by *ek*[5]: if 0, *ek*[6].
ek cycle's A; *ep*, B; and so on[7]; e'ery 4th has 2[8] (next
after these 3ds: *d* E, *au* G, *a-y* B, *bo* D, *aei* F, *de* A, *dau* C) and
Former is us'd till Feb-*do*, in Leap-years; and, after, the Latter.

....

To find the Sun's Place in the Zodiac, V. Signs.

1. i. e. On *Jan.* 4, the Sun rises at 8.

2. i. e. On *Jun.* 21, New style (which is the *Longest* day) the Sun rises at 3 h. 43'.

3 i. e. The day *sought* (reckond from the day of the Sun's rising) multiplied into 60, and divided by the number of *All* the days between the day of the Sun's rising (specified) in any month, and the day of its rising in the next; *gives* the *Minutes fewer* (or, to be subtracted from the hour speci-

fied) in the 1*st line; more* (or, to be added) in the 2*d line*. ——e.g. Apr. 13, I would know when the Sun rises. By 5 Apr-*ou* I find that the day sought (reckond from the day of the Sun's rising, viz. the 9th) is 4 [for 9 + 4=13]. Then 4 × 60 = 240 : and 240 ÷ 36 (the number of All the days from 5 Apr-*ou* to 4 M-*as* : i.e. from 9, the day the Sun rises at 5 in April; to 16, the day the Sun rises at 4 in May) =6′ [and $\frac{24}{36}$ i. e. by reduction] 40″. —5 h. (the day it rises on the 9th of April) = 4 h. 53′, 20″, then, therefore the sun rises on that day, viz. Apr. 13.

4 Thus, Dec. 21, New stile, the sun rises at 8 h. 17′: *the complement of* its *rising to* 12 is 3 h. 43′ [for 8 h. 17′ ÷ 12 h. = 3 h. 43′]. The sun therefore *sets* at 3 h. 43′: *and* this, *doubled*, *gives* the length of *the* day, viz. 7 h. 26′: shorter by 9 h. 8′. than the longest; which (by the same calculation) will be found to be 16 h. 34′.

5 e. g. 1737 + 9 = 1746 ÷ 28 = 62 (the number of revolutions since Christ) remainder 10, for the number of the cycle.

6 i. e. If there be *no remainder*, it will be (*ok*) the 28th, or last year of the cycle.

7 i. e. The dominical letter answering to the year of the cycle 28 is *A*; to 27, *B*; *and so on* (backwards) to G, the 7th and last: after which returns A, B, &c.

8 e. g. *Every 4th* (or Leap year *) *has* 2 dominical letters: the *latter* of which is us'd after Feb. 24, the intercalary day; which is therefore denoted by the same letter as the 23d. —— N.B. For the readier finding the dominical letter answering to any number of the cycle, I have given (in parenthesis) those of every third: thus (*aei* F) F answering to 18 (one of the 3ds there specified), 17 (the next 4th, reckoning backwards) will be G A ; 16, B ; 15, C ; &c.

(a) For the readier finding Leap-year, the rule is this: " *Year-sought divide by* 4 ; *what's left will be, for leap-year*, 0 ; *for past*, 1, 2, *or* 3." e. g. 1737 ÷ 4 = 434 : remainder 1, for 1st after leap-year.

CHRONOLOGY.

Roman Manner of Dating.

(1) Kal. Non. Id. (2) Pridie. (3) Tert. quart: (nb)
The day sought subtract from
One mŏre thăn Ide-None-days; *Two* more thăn thĕ
month's, fŏr thĕ Kalends.

I. i.e.) For the days on which the Kalends, Nones, Ides of any month happen (V. Months) write (e. g.) *Kal.* Dec. on the kalends of december, viz. the 1st day of December. (2) On the day preceding each of them, write (e.g.) *Pridie* Kal. Dec. i. e. pridie kalendas decembris, on the day before the kalends of december, viz. the 30th of november. (3) For the days backward, write *Tertio, Quarto, &c.* i. e. on the 3, 4th, &c.

II. To find any of the days, e. g.——(1) 10th of december, What, in the Roman style? Answ. 10—14 (*One more than the days the ides happen on*) = 4. i. e. 4to id. dec. Again (2) 4to id. dec. What, in the English style? Answ. 4 — 14 = 10. i. e the 10th of december —— (1) 20th of november: Say 20—32 (*Two more than the number of the days in the month*) = 12. i. e. 12mo. kal. dec. (2) 12mo. kal. dec. say 12 — 32 = 20.

EPOCHAS.

Their Commencement in the Julian Period.

World	*pauf*	764	of the World	*from the* creation (A.M. or O.C.)
Christ*	*opaf*	4714	of Christ	birth of *Jesus Christ* (A.D.)
Act	*óski*	4683	Actian	defeat of Antony at *Actium.*
Agon. capit.	*opnou*	4799	Capitoline	institution of the *Capitoline* games.
Báb	*doke*	2482	Babylonian	beginning of the *Assyrian* monarchy.
Cyr	*obki*	4183	of Cyrus	end of the captivity under *Cyrus.*
Del	*efan*	2419	Deluge	Noah's universal *Deluge.*
Dioclesi	*onnoi*	4997	Dioclesian	persecution under *Dioclesian.*
Exod	*idáp*	3217	Exodus	*Going* of the Israelites *out* of Egypt.
Heg	*util*	5335	Hegira	*Flight* of Mahomet to Mecca.
Indict	*uzel*	5025	Indictions	institution of the *Indictions.*
Juli	*ospa*	4671	of Julius	reformation of the calendar under *J. Cæsar*
Nábon	*inaup*	3967	of Nabonassar	reign of *Nabonassar* king of Babylon.
Olympic	*inik*	3938	Olympic	institution of the *Olympic* games.
Philip	*ôtni*	4393	Philippic	succession of *Philip* to Alex. the Great.
Rom	*insa*	3971	Rome built	building of the city of *Rome* (U.C.).
Sel	*ofyt*	4403	Contracts	reign of *Seleucus* king of Syria, &c.
Spanish	*ospau*	4676	Spanish	defeat of the *Spaniards* by Calvinus.
Tróy	*tute*	3532	Troy taken	taking of the city of *Troy.*
Yezdegir	*utof*	5344	Yezdegirdic	death of *Yezdegird* king of Persia.

* Christ born A. M. *fyzo.* Jew-*ipaud.* Greek, ecc-*lonf*: civil-*ulzou.*

To find

1. { *The year of the* Julian *period corresponding to any year in any Æra.*

2. { *Any year of any Æra by the corresponding year of the Julian period.*

1) { Jul——for *After* add Comm-less-1——for *Afore* take from Comm.

2) { Ær——*After*, Comm.-less-1 take for Corr —— but *Afore*, Corr. from Comm.

* * * * * * * * *

1. *What year of the* Julian *Period* is the year 1737 (1) before Christ? (2) after Christ?————Answ. (1) 1737 (before Christ)—4714 (the year of the *comm*encement of the Christian æra in the Julian period) = 2977. (2) 1737 (after Christ) + 4713 (the *comm*encement-*less*-1) = 6450, the year of the Julian period.

2. *What year of the* Christian *Æra* is the year of the Julian period (1) 2977? (2) 6450?————Answ. (1) 2977 (the year of the Julian period *corr*esponding to the year of the æra sought) — 4714 the *comm*encement of the Christian æra) = 1737. (2) 6450 the *corr*esponding year) — 4713 (the *comm*encement-less-1) = 1737.

* * * * * * * * *

* *For the Number of Years from the Creation to the Birth of Christ.*

——— The *Christian* vulgar æra commences in the year of the world 4004, jan. 1. [according to Helvicus, Isaacson, &c. 3948]———The *Jews* place the creation of the world, Later by 242 years, viz. in 3762, oct. 7———The *Greek* historians, on the authority of the septuagint, Sooner by about 1490, or 1500 years, viz. the *ecclesiastical*, in 5494; the *civil*, in 5509.

FESTIVALS,

Holy-Days, Feasts, &c.

IMMOVEABLE.

Christ.

Nát-de,*du*[1], Círc-ja,*b*. Epiph-ja,*s*. Lámm-au,*b*. HoRood-se,*bo*. Transf-au,*s*.

Mary.

Ann-măr,*el*. Púr-feb,*e*: Nat-se,*k*. Vís-jul,*e*. Cónc-dc,*k*. Ass-au,*al*.

Saints.

All-nŏv,*ă*. And-nov,*iz*. Bap-jun,*ef*. Bárnaby-jun,*ab*. Barth-aug,*éf*. George-apr,*et*. James-jul,*du*. Innŏcĕnt-dee,*doi*.

John-dec,*doi*. Luke-o,*ak*. Mark-ápri,*du*. Mártinovemb,*ad*.

Mátt-se,*da*. Paul-jan-*du*. Pet-jun,*dau*. Phíl Jacomay,*a*.

Sím Jud-o,*ék*. Ste-de,*dau*. Tho-dec,*da*. Válentine-feb,*af*.

Royal Family, 1737.

Cór-o,*ba*. Prócla-jun,*ab*. Born,King-o,*ty*: *seit*. Queen-mar,*a*: *seid*.

Wáles-ja,*ty*: *pyp*. -cess-n,*ak*. AnÓr-o,*de*: *pўn*. Ame-ma,*iz*: *pab*.

Car-ma,*iz*: *pát*. Will-apr,*al*: *peb*. Már-fe,*de*: *pet*. Loui-d,*p*: *pef*.

Terms, as in 1737.

Terms hold weeks *al*: dáys Hilar-*eb*. East-*ép*. Trin-*dy*, Mich-*tau*.

Hil from jáu-*di* to feb-*be*——Mich from óc-*do* to nov-*ek*.

East, wĕd-*e* áfter,begins: ends, áfter ascénsion, mond-*a*.

Trin, frĭday áfter, begins; and ends 3d wédnesday after.

Vac. holds weeks *toi*: dáys Hilar-*oit*. East-*ap*. Tr-*abs*. Mich-*us*.

Quarterly.

Lády-mar,*el.* Midsum-jun-*ef.* Mich-sep,*dou.* Chri-dec,*al.*

State Holidays.

Fírc-sep,*e.* Poud-no,*l.* Márt-ja,*ty.* Réstor-may,*dóu.* Revo-feb,*at.*

MOVEABLE.

1 *Before and after Easter.* 2

1 { Sept-*st*[2]. Sex-*us.* Shrove-*ón.* Qua-*fe.* Lent-*os.* Pál-*p.* Maund-*i.* Good Fri-*d.*

EASTER's the first Sunday after first Full-moon after March-*da.*

2 { Low-*ot*[3]. Róga-*tu.* Asc-*in.* Whits-*on.* Trín-*lau.* Ad-*eta.*

EMBER-*days.* We Fri Sát, after Quá Whit Ho Róod Luci-*dec,at.*

EASTER TABLE 3.

Paschal full-moons for the Golden-numbers, with the Hebdomadal Letters.

1	A	*l*	d	8	A	*bei*	c	15	A	*a*	g
2	M	*el*	g	9	A	*oi*	f.	16	M	*ea*	c
3	A	*bi*	e	10	M	*eoi*	b	17	A	*n*	a
4	A	*e*	a	11	A	*bu*	g	18	M	-*eou*	d
5	M	*ed*	d.	12	A	*f*	c	19	A	-*boi*	b
6	A	*by*	b	13	M	*eo*	f				
7	M	*iz*	e	14	A	*be*	d				

Use of the Table.

Súm from Hebdóm to Domín (of the year sought) ádd to the Month's day.4

Synonyms, &c.

Ash-wednesday, 1st day of lent. Candlemas, purification of the virgin M. Crucifixion, good-friday. Holy-thursday, maunday. Holy-week, last of lent. John the Baptist, midsummer. Parasceue, good-fri-

day. Passion-week, last of lent. Pentecost, whitsuntide, whitsontide. Processioning-day, ascension day. Quinquagesima, shrove-sunday. Shor-(Shur-)thursday, maunday-thursday. Twelfth-day, epiphany.

▪▪▪▪▪▪▪▪

1 i. e. The *nativity* of Christ is on *dec.* 25. and so of the rest.

2 i. e. ——*Septuagesima*-sunday is (st) 63 days *before* Easter [70 before the octave of easter]——*Low*-sunday is (oi) 7 days *after* Easter, and so of the rest.

3 The *Easter-table* consists of 5 verses, each ending at a period-mark; and may be read thus: " One-ald, two-melg, three-*ăbĭ* e, (four A *ĭ ă*, five-medd." &c.—Its *Use* is to find Easter-sunday for ever. V. n. 4.

4 e.g. A. D. 1737, the golden number is 9, the dominical letter B. then, against 9 (in the table) the hebdomadal letter is F. from thence to the dominical B. are (g a b) 3: which added to apr. 7 (the day of the month, in the table) gives ap. 10, for easter-sunday.——So A. D. 1736, golden-number 8, 1st dominical-letter C: then from C (in the table) to C (dominic.) 7 + apr. 18 = apr. 25.

GEOGRAPHY.

In the following verses (which contain as much, I think, as is necessary to charge the memory with by way of foundation) I have given the most general divisions of the several parts of the terraqueous globe; beginning, in each, with the most northerly parts, and, in descending southwards, proceed (to the right) from west to east: so that children, with a few hints and occasional helps, may be able to find them, by themselves; and thereby fix them better in their memory; after which they will easily get the verses by heart, and be well prepared to consult the gazetteer, or to go through any system, with pleasure, to good advantage.

LAND.

Continents, Isles, Peninsulas, Isthmus, Capes, Mountains.

CONTINENTS.

Europe, Africa, Asia, and America.

AF (8) Bar (féz mor a tún tripo bárc) Bi (dar) Egy (ălex cair)

Zaár (zu) Ne (tómb) Nubi (dáng) Gui (ma why' be lo cáng) Ethi (mon caf)

AM (23) Green Brít Wa La Cán Acad Eng Jers Pén Mary Virg Car

Geor Kent. Flór (aug pens) Mex (guád mi ta jú chi guat hon ver)

Firm (pa ca már venez ánd gra po cóm dari) Pér (quito lím charc)

Am: Brăsĭ (sál seba vin) Chil (já) Para (guai tucu plat) Mag

AS (5) Tăr (ă síb che thi) Túrk (tu na cúrd sy di ár) Pe (der isp gomb)

Ind (mōg āg beng: vis go bi mál: pe to sí co) Chi pek nank

EUR (18) Nor-*berg*. Swede-*stock*. (Scot-*ed'n*. Ire-*dúblin*. E-*london*)

Dén-*cŏp*. Hŏl-*amst*. Fland-*brúss*. Ge-*vién*. Po-*wa*. Russ-*petre*: France-*par*.

Switz-*basil*. Húng-*presb*. Port-*lisb*. Spáin-*mad*. Itál-*ro*. Tu-*constant*.

AFRICA.

Barbary comprehends the kingdoms of Fez, Morocco, Algiers, Tunis, Tripoli, Barca. *Bildulgerid*: Daara. *Egypt*: (ch. cit.) Alexandria, Cairo. *Zaara*: (ch. prov.) Zuenziga. *Negroland*: Tombute. *Nubia*: Dangola. *Guinea*: Malaguette, Whydaw, Benin, Loango, Congo, Angola. *Ethiopia*: Monemugi, Monomotapa, Caffraria.

AMERICA.

Greenland, New-Britain, New-Wales, Labrador,

Canada, *Acadia* or Nova Scotia, *New-England*, *New Jersey*, *Pensylvania*, *Maryland*, *Virginia*, *Carolina*, *Georgia*, *Kentucky*. *Florida* (ch. towns) St. Augustine, Pensacola. *Mexico*: (ch. prov.) Guadalajarra, Mechuacan, Tabasco, Jucatan, Chiapa, Guatimála, Honduras, Verágua. *Terra-Firma*: Panama, Carthagéna, St. Martha, Venezuela, Andalusia, Granada, Popayan, Comana, Darien. *Peru*: Quito, Lima, Los-Charcos. *Amazonia*. *Brasil*: (ch. cit.) St. Salvador, St. Sebastian, St. Vincent. *Chili*: St. Jago. *Paraguay*: (ch. prov.) Guaira, Tucuman, Rio-de-la-Plata. *Terra-Magellanica*.

ASIA.

Tartary: (ch. prov.) Astrachan, Siberia, Chenyang, Thibet. *Turkey*: Turcomania, Natolia, Curdistan, Syria including Palestine, Diarbec, Eyraco-Arabic. *Persia*: (ch. cit.) Derbent, Ispahan, Gombroon. *India*: (ch. prov.) empire of the Great Mogul (Agra, Bengal) Visiapour, Golconda, Bisnagur, Malabar, Pegu, Tonquin, Siam, Cochinchina. *China*: (ch. cit.) Pekin, Naukin.

EUROPE.

Norway: (ch. cit.) Bergen. *Sweden*: Stockholm. *Scotland*: Edinburgh. *Ireland*: Dublin. *England*: London. *Denmark*: Copenhagen. *Holland*: Amsterdam. *Flanders*: Brussels. *Germany*: Vienna. *Poland*: Warsaw. *Russia*: Petersburgh. *France*: Paris. *Switzerland*: Basil. *Hungary*: Presburg. *Portugal*: Lisbon. *Spain*: Madrid. *Italy*: Rome. *Turkey*: Constantinople.

\- - - - - - - -

Capes, Islands, Peninsulas, and Mountains.

CAPES: La Li St-*éng*. Fi Vi-*spáin*. Bla Ve Góod-*afri*. Cóm-*malab*. Horn-*fueg*.

ISLES : Zĕ-*den*. Az-*pŏ*. Să Síc Ca Cy-*méd*. Ma Ca-*bárb*. He-*gui*. Mad-*eth*.
Mald Ceyl Súm Bo Su Jáv Phi Mo Ladr-*ind*. Newf-la. So-*south-seas*.
Bér-*flo*. Ba Cú Jam Hi Ríc, Carib (ánt ne mo barb) *mex*. Fueg-*mag*.
PEN : Jŭ-*de*. Mó-*gre*. Pre-*tárt*. Afri. Cámb. Malac-*ind*. Mex-*amer-north*.
MOUNT : Chĕvĭ-*scot*. Pyr-*spain*. Alps-*it*. Cauca-*tárt*. Apalach-*n-am*.

CAPES.

Land's-end, Lizard, Start-point (of) *England*. Finisterre, St. Vincent's, *Spain*. Blanco, Verd, Good-Hope, *Africa*. Comorin, *Malabar*. Horn, *Fuego*.

ISLES.

Zealand (in) *Denmark*. Azores (west of) *Portugal*. Sardinia, Sicily, Candia, Cyprus (in the) *Mediterranean*. Madeiras, Canaries (against) *Barbary*. St. Heléna, *Guinea*. Madagascar, *Ethiopia*. Maldives, Ceylon, Sumatra, Borneo, Sunda, Java, Phillippines, Moluccas, Ladrones, *East-Indies*. Newfoundland, *Labrador*. Society-Isles (in the) *South-Seas*. Bermudas (against) *Florida*. Bahamas, Cuba, Jamaica, Hispanióla, Porto-Rico : Caribbees (Antigua, Nevis, Montserrat, Barbadoes) *Mexico*. Fuego, *Terra-Magellanica*.

PENINSULAS.

Jutland (in) *Denmark*. Morea, *Greece*. Precop, *Tartary*. Africa. Cambaya, Malacca, *East-Indies*. Mexico, *North-America*.

MOUNTAINS.

Cheviot (between) *Scotland* and *England*. Pyrenees, *Spain* and *France*. Alps, *Italy* and *France*. Caucasus (in) *Tartary*. Apalachian, *North-America*.

WATER.

Oceans, Seas, Gulphs, Straits, Rivers, and Lakes.

OCEANS: Hyp. Ethi. East. Alt-West. Paci-South-del Zur. Ice.

SEAS: Ba *de-Swede*. Chan-*éng*. Med-*eu,áfr*. Black-*eu,as*. Casp-*tartar*.

GULFS: Bo Fi-*swéde*. Ven-*itál*. Red-*arab*. Pers. Béng. Baff Hu-*north-am*.

STRAITS: Sound-*bált*. Gi-*med*. Hél-*bla*. Ba-*réd*. Sun-*in*. Húd-*bu*. Da-*baff*. Mag.

LAKES: Lad O-*russ*. Ne Lo-*scot*. Ge Lu-*switz*. Baba-*pérs*. Bo-*ne*. Par-*firm*.

RIV. Vŏ-*că*. Dan-*bla*. Rhi-*ger*. Rh Eb Níl-*me* T. Eu-*pers*. Ga-*be*. Mis-*mex*.

OCEANS.

Hyperborean or northern. Ethiopian. Eastern. Atlantic or western. Pacific or south, or mare del Zur. Icy near the South Pole.

SEAS.

Baltic, east of *Denmark* and *Sweden*. Channel, south east of *England*. Mediterranean, between *Europe* and *Africa* and part of *Asia*. Black sea, between part of *Europe* and *Asia*. Caspian, in *Great Tartary*.

GULFS.

Of Bothnia and of Finland, in *Sweden*. Of Venice, east of *Italy*. Red-sea, between *Arabia* and *Africa*. Persian Gulf. Bay of Bengal in *Asia*. Baffin's and Hudson's Bays in *North America*.

STRAITS.

Sound (of the) *Baltic*. Gibraltar, *Mediterranean*, Hellespont, *Black-sea*. Babelmandel, *Red-sea*. Sunda, *Indian-ocean*. Hudson's, *Button's-bay*. Davis's, *Baffin's-bay*. Magellan, *South America*.

LAKES.

Ladoga and Onega, western part of *Russia.* Loch-Ness and Lomond (in) *Scotland.* Lakes of Geneva and Lucern, *Switzerland.* Babacombar, *Persia.* Bornou, *Negroland.* Parime, *Terra Firma.*

RIVERS.

Volga (falls into the) *Caspian-sea.* Danube, *Black-sea.* Rhine, *German-ocean.* Rhone, Ebro, Nile, *Mediterranean.* Tigris, Euphrates, *Persian-gulf.* Ganges, bay of *Bengal.* Missisippi, bay of *Mexico.*

A more particular Account

of the several countries of Europe may be exhibited, so as to give a precise idea of the situation of each sub-division, after the manner of the following specimen: in which (beside what was proposd in general, note 1.) such as are contiguous *Southward*, are *joind*; as in weLa- : such as are contiguous *Westward*, are *hyphend*; as in Che-De- &c.

ENGLAND.

Its Forty Counties.

Nor cum-dúr : weLa-yórk : che-de-not-linc : shrópsta-le-rut norf :
Hér-wo-wa-nórtha ; Bed-hunt-cámb-suff : mon-gl-óxfo-buck-hert-ess.
Som--wilt- bérk--middlesex : corn--dev--dors--hámp-surrey-kentSuss.

FIRST MERIDIANS

On either Side of Teneriffe.

(Eást) London-*as* (West) Fer-*d.* Jag--*s.* Nícol-*oi.* Corvó-*boi.* Bras-*bou*,

Abbreviatures.

Ferro. St. Jago. St. Nicholas, coast of Brasil.

....

The Dutch placed the first Meridian at Teneriffe; the French, since 1634, at Ferro, two degrees west of Teneriffe: others variously, as in the memorial verse. In most of the French maps and those copied from them two degrees must be allow'd on such as are calculated on the Dutch plan to make them correspond; as for example—Hamburgh is there said to be *long.* 29° 20′ E. consequently in the French maps it will be found in 31° 20′, and in similar manner are all the rest. Many modern geographers usually now calculate the first Meridian from the capital city of the state in which each resides: the English reckon from the Royal Observatory at Greenwich near London; the North Americans from Philadelphia, situated 75° 8′ W. from London; and several of the French from Paris 2° 20′ E. of London.

HISTORY.

BIBLE.

The several Books of it, with the Time of their writing.

OLD TESTAMENT.

Its 39 Books.

Elĭh-jŏb; *áptyt.* Mo-pent: *bog.* Jósh: *boly.* Sám-ju-ki: *bazy.*

Dáv: *byly.* Sal-pro-can-ecc: *ath.* Mórd-e: *toz.* E'z-chr: *ety.* Neh: *eg.*

Prophets.

Jón: *kse.* Jo: *eig.* Am: *peip.* Hose; *oieil.* Is: *păuy.* Nah: *puk.*

Mic; *put.* Jér: *sta.* Zeph: *áutz.* Haba: *syn.* Ezĕ: *loul.* Obadi-'*koi.*

Dániel: *ull.* Hag: *léz.* Zechari: *udz.* Málachi; *touoi.*

NEW TESTAMENT.

Its 27 Books.

Matt-*fa*.[2] Mar-*ot*. Thes-*lét*. Pe-*lo*. Gal Cor Róma-*loi*. Luke-sa.
Phíl Col Ephés Phile Jáme-*se*. Heb Act-*si*. Tímothy Tít-*su*.
Tim Peter-*aup*. Jude-*pá*. Revel-*ous*. John-*noi*.——[3]*doi* in *iau*.

....

1 i.e. *Elihu* is most probably supposed to be the author of the book of *job*, about 1730 years before the birth of Christ. So, *Moses*, the author of the *pent*ateuch, flourished in the year before Christ 1400. And so of the rest.——— N.B. *Ezra* is thought by the jewish doctors to have writ the *chr*onicles [the 36th chapter of Genesis, the last of Joshua and Jeremiah; and to have revised and settled the canon of the old testament.]

2 i.e. *Matt*hew writ his gospel about the year of our Lord 41. And so of the rest.

3 i.e. 27 books (from the year 41 to 97) in 36 years.

ENGLAND.

Its Kings, since the Conquest, with the Commencement of their Reigns.

WILL Conq-*sau*,[1] Ruf-*koi*. HEN 1st-*ag*. STÉPH-*bil*. HE sec-*buf*.
RICH 1st-*bein*. JOHN-*ann*. HEN 3d-*das*. EDWARD 1st-*doid*.
Ed 2d-*typ*, 3d-*tép*. RI sec-*ipp*. HEN 4th-*toun*, 5th-*fat*.
6th-*fed*. Ed 4th-*faub*, 5th, RĬ 3d-*feit*. HE 7th, *feil*, 8th-*lyn*.
ED 6th-*óp*. MARY-*lat*. ELS-*luk*. JAME 1st-*syt*. CA 1st-*sel*.
CAR 2d-*són*. JAME se-*seil*. WILL MA-*sein*. ANN-*pyd*. Geo-*paf*, *pep*.

1 i. e. *Will*iam the *conq*ueror began his reign (accounting the year to begin january 1) A. D. 1066——N.B. 1000 is omitted throughout this list.

MONARCHIES.

The grand or universal ones, their Rise, Fall, and Continuance.

ASS: Nĭn(A.M)-*ŭpók*, Sar-*tetú* (Bab-*ifan*, Pers-*táuboi*, Grec-*isel* ÷

Cáss-ma-gre. Lys thrac-he-bós. Ptolem aé-lib-a-pál-sy. Seleuc as.)

ROM: Jul-*iny'd*, Jov-*otat* ÷ East, Wést: taken Cón-*loze*, Rom-*otun*:

A'lar(A.D)-*obz*. Attĭ-*flă*. Góns-*ful*. Od-*ops*. Theód-*oni*. Tot-*lop*.

----

i.e. The——Assyrian monarchy begun in *Nin*us (A.M.) 1748, and ended with Ass*ar*addinus in 3235; being swallowd up by the Babylonian, which ended (with Nabonadius) in 3419, (when Cyrus reignd over all Asia) so the kingdom was translated to the Persians: from whom (by the conquest of Darius Codomannus) in 3617, Alexander translated it to the Grecians: after whose death, in 3625, it was (÷) divided (after the confusion of a few years) among four of his followers. *Cas*sander had *ma*cedon and *gre*ece: *Lys*imachus had *thrac*e, with those parts of Asia that border on the *he*llespont and the *bo*sphorus: *Ptolem*y had *æ*gypt, *lib*ya, *a*rabia, *pal*estine, and cœlo*sy*ria: *Seleuc*us, all the rest of *as*ia. The——Roman monarchy begun with *Jul*ius Caésar, in 3902; and ended in Jovian in 4313: after whose death it was (÷) divided into the *East*ern, and *West*ern empires: the former of which ended by the taking of *Con*stantinople (under Constantine Palæologus) in 5402; the latter by the taking of *Rom*e (under Honorius) in 4359, A.D. 410; by *Alar*ic, king of the Goths: after whom it was overrun and ravagd by *Atti*la, king of the Huns, in 451; by *Gens*eric, the Vandal, in 455; by *Od*oacer, king of the Heruli, in 476; by *Theod*oric, king of the Ostrogoths, in 493; by *Tot*ilas, the Ostrogoth, in 547.

1. The ROMAN *Legion* consisted of (at a medium) 6000 men: though the number was different, at different times, from 3000 to 6666. And, in proportion, the other bodies, viz. *Decuria*, 10. *Centuria*, 100. *Manipulus*, 200. *Turma*, 300. *Cohors*, 600. *Phalanx*, 8000.

2. An ENGLISH *Regiment* is from 300 to 1000 men. And, in proportion, the other bodies, viz. *Company*, 50-100. *Squadron*, 100-200: *Battalion*, 500-800. *Brigade*, 1000-1100.

NATURAL PHILOSOPHY.

PHYSICS.

ANNUITIES.

The Value, for several Ages of Life.

A-*bz,dei*[1]. Az-*bĭ,fo*. Ez-*bĕ,pei*. Iz-*bŭ,pe*. Oz-*ŭz,ŭp*. Ol-*n,oub*.

Uz-*ou,cb*. Ul-*k,ub*. Auz-*oi,sy*. Aul-*ău,lo*. Oiz-*l,id*.

....

1. i.e. for (A) 1 year of age, the value of an annuity is (*bz,dei*) 10,28 years purchase. And so of the rest. V. Halley, ap. Lowthorp, vol. 3. p. 669.

ARKS.

Of Noah, and of the Covenant or Testimony, their Dimensions in Cubits.

(COV) L-*e,re*. Br-*ă,re*. D-*a,rĕ*. (NOAH) L-*ig*. Br-*uz*. D-*iz*; for Birds-*eg*, Qu-*ag*.

i.e. The *Ark*——of the COVENANT was a sort of Chest in *L*ength, *B*readth, *D*epth, 2½: 1½: 1½.——of NOAH was a sort of Ship, 300; 50: 30: sufficient to hold (with food, &c.) all kinds of *Birds* (viz.) 200; *Qu*adrupeds, 100. V. Gen. 6. 15. Exod. 25. 10.

ATMOSPHERE.

Its Height, Weight, Elasticity, &c.

Atmosphere (HIGH miles-*ōz*[1]) on a foot-square présses *esauz* pounds;
On 15 feét (for a man) tuns-*al*: when leást, tun-*a*,*re* less [2];
WEIGHING as 1 —— to (water) *eig* —— to (mercury) *azth eig*[3].
CÓMPREST, on Eárth, to *atpaun*[4]; by Art, 60 tímes more, to *kesboz*.

• • • • • • • •

1 As appears by a calculation, made by M. de la Hire, from the crepuscula.

2 As appears by calculations made from the Torricellian experiments. V. Jurin, ap Varen. 1. 6. 19. 7.

3 i.e. The weight of air compard to that of water, is as 1 to 800. &c. V. Hauksbee's exper.

4 i.e. The common air we breathe, near the surface of the earth, is comprest, by the bare weight of the incumbent atmosphere, into a 13769th part of the space it would take-up, were it at liberty. V. Boyle, ap. Wallis. hydrost. 13. Philos. trans. n. 181.

DIVISIBILITY

Of Matter, actually great.

By great EFFLUVIA, ín a long tíme, bodies lóse but a small weight[1].
Candle, an inch, convérted to LIGHT——gives párts a nonillion.[2]

1 As is evident in perfumes, &c.

2 At which rate there must fly out of it, as it burns, in the second of a minute, 418,660,000.000,000.000,000.000, 000 000,000.000,000.000,000 particles: vastly more than a 1000 times a 1000 millions the number of sands the whole earth can contain; reckoning 10 inches to 1 foot, and that 100 sands are equal to 1 inch. V. Nieuwent. rel. phil. vol. 3, p. 858.

DUCTILITY

Of Bodies, very great.

Microscópical SPIDERS[1] spín at-a-tímo, at least, threads-*auth.*

GLASS may be dráwn[2] as a web, and knít to the 4th ŏf a line space[3].

GOLD, on Silver-wíre, is drawn[4] to the párt of an inch-*bom.*

....

1 i.e. Such as are not visible but by a microscope.

2 "As fine as a spider's web:" but not long enough to be woven.

3 i.e. So, that the space in the middle of the knot shall not exceed one 4th of a line, or one 48th of an inch.

4 "To the 14-millionth part of an inch, in thinness:" and yet is so perfect a cover to the silver, that there is not an aperture to admit alcohol of wine (the subtilest fluid in nature) nor even light itself. Reaumur.

EVAPORATION

From Water, its Quantity.

FOOT-squăre, bў héat, in a day, *evá́porates* hálf of a wine pint[1].

So, Medi tuns-*udky'm*[2]; near a thírd more than's brόught by the rivers[3].

....

1 According to experiments made by Dr. Halley, ap. Miscell curios. vol. 1. To which it may be added, that the winds do sometimes carry-off more than rises by heat.

2 Estimating the *Medi*terranean at 40 degrees long, and 4 broad.

3 V. Rivers. and, consequently, from the whole watery surface abundantly enough to furnish all the dews, rains, springs, rivers, &c. that are convey'd into the ocean.

MAN.

Life, Marriage, Parts, Perspiration.

LIVE, out of *ág*, but—at *Aú*, *so* [1] —at *As*,*fy*—ăt *Es*, *bŭ*—ăt *Is*, *bau*
&——at *Os*, *ăz*——ăt *Us*,*au*——&——at *Aus*, ĭ——ăt *Ois*, *a*.

MARR. *a* in *ázf*[2]: bir-*f*[3] (to búr as *a*,*áu* to *a*[4]) máles-*bo* to fem-*at* [5].

BONES-*eni*. MUSCLES-*len*. TEETH-*íd*——BLOOD as *ag* to *aauy*[6],

Béats, in an hour, times-*óth*: and an óunce, at a tíme, is discharged [7]:

52 féet in a mínute; as sépt-*ag* to 1 ĭn thĕ extremes[8].

PÉRSPIRE through póres (*belth*-whereof by óne grain of sánd may be coverd)

5 părts ŏf 8 (ă dăy's foód) from hours 5, after méals, to the 12th, 3[9].

....

1 i. e. Of the children born, out of 100, there are living, at 6 years of age, but 64. And so of the rest. V. Halley, ap. Lowthorp. vol. 3. p. 669.——N.B. On observations of this nature, drawn from the bills of mortality, is computed the value of *annuities* for different ages of life. V. Annuities.

2 i. e. 1 in 104 *Marry*. King.

3 i. e. Marriages, one with another, do each produce 4 births. Derham.

4 i. e. *Births* to *Burials* are as 1, 6 to 1. Derham.

5 i. e. *Males*, born, *to Females*, are as 14 to 13. Graunt.

6 i. e. In a body, weighing 160 pound, 100 thereof are *Blood*; understanding thereby not only the fluid containd in the veins and arteries; but also that in the lymphæ-ducts, nerves, and the other vessels, secreted from it, and returnd into it. Keil.

7 i. e. 250 pounds in an hour; at the rate of the whole mass, in 24 minutes.

8 i.e. The blood is driven out of the heart into the great artery with a velocity, which would carry it 52 feet in a minute: a velocity to that of its motion in the remotest branches, as 100 septillions [7th period] to 1.

9 Within 5 hours after eating, there is perspir'd about 1 pound; from the 12th to the 16th scarce half-a-pound. Sanctorius.

RIVERS.

The Quantity of their Waters.

At Kĭngstŏn-bridge, THAMES (yards Broad-*ág*, Deep *i*,) 2 mile an hour Runs[1]:
tuns-*ezm igth* in a day; rh e ti po ni do niest nieper *akdoim*[2].

---

1 In a day, 48 miles, 84,480 yards; which multiplied by (3 times 100, the profile of water at the bridge, viz.) 300 yards, gives 25,344,000 cubic yards of water, i. e. 20,300,000 tuns.

2 The most considerable rivers that fall into the MEDITERRANEAN sea, are the *Rhone, Ebro, Tiber, Po, Danube, Nile, Don, Niester, Nieper.* Each of these is supposd to carry-down 10 times as much water as the Thames (not that any of them is so great; but so to allow for the other lesser rivers that fall into that sea). Now the water of the Thames being computed, as above, at about 20,300,000 tuns; the 9 rivers aforesaid will amount, each, to 203,000,000; in all, 1,827,000,000 tuns. V. Evaporation.

MEMORIAL VERSES,

Adapted to the Gregorian Account, or New Style.

To know if it be Leap Year.

Leap year is given, when four will divide
The Cent'ries complete, or odd years beside.

EXAMPLE FOR 1752.

4)52(0, Leap Year
—
13

EXAMPLE FOR 1800.

4)18(2, not Leap Year
—
4

To find the Dominical Letter.

Divide the cent'ries by four; and twice what does remain
Take from six; and then add to the number you gain
The odd years and their fourth; which, dividing by seven,
What is left take from seven, and the letter is given.

EXAMPLE FOR 1752.

```
4) 17 (1
   —  2
    4 —
      2
      6
      —
      4
     52
     13
     —  7
  7) 69 (6
     —  —
      9 1 = A.
```

By the Dominical Letter, *to find on what Day of the Week any Day of the Month will fall throughout the Year.*

At Dover Dwells George Brown, Esquire,
Good Christopher Finch, and David Frier.*

EXAMPLE FOR MAY 9, 1752.

A being the Dominical Letter.

```
1 May = B = Monday
7
—
8 = Monday
1
—
9 = Tuesday.
```

---

* See this noticed at page 94 of Grey's Memoria.

To find the Golden Number, Cycle of the Sun, *and* Roman Indiction.

When one, nine, three, to the year have added been,
Divide by nineteen, twenty-eight, fifteen :
By what remains each cycle's year is seen.

EXAMPLES FOR 1752.

```
  1752                          1752
     1                             9
  ----                          ----
19)1753(92                   28)1761(62
    43                            81
     5   = G. No.                 25 = Cy. S.

              1752
                 3
              ----
           15)1755(116
              25
              ----
               105
                15 = Rom. Indict.
```

A general Rule for the Epact.

Let the cent'ries by four be divided ; and then
What remains multiplied by the number seventeen ;
Forty-three times the quotient, and eighty-six more
Add to that ; and dividing by five and a score ;
From eleven times the prime, subtract the last quote
Which rejecting the thirties, gives th' epact you sought.

EXAMPLE FOR 1752.

```
4)17( 1        G.No. = 5
 — 17                 11
  4                   —
  43                  55
 ——                   11
 172                  —
  86               30)44(1
  17                  14 = Epact
 ——
25)275(11
 ——
```

To find the Epact *till the Year* 1900.

The prime wanting one, multiplied by eleven,
And the thirties rejected, th' epact is given.

EXAMPLE.

```
G. No. = 5
         1
         —
         4
        11
         —
     30)44(1
        14 = Epact.
```

To find Easter Limit, or the Day of the Pascal Full Moon, from March 1, *inclusive.*

Add six to the epact, reject three times ten,
What's left take from fifty, the limit you gain :

Which if fifty, one less you must make it, and even
When forty-nine, too, if prime's more than eleven.

EXAMPLE.

Epact = 14
6
—
20
50
—
30 = Limit.

To find Easter Day:

If the letter and four from the limit you take,
And what's left from next number which sevens will
make;
Adding then to the limit what last does remain,
You the days from St. David's to Easter obtain.

EXAMPLE.

Limit = 30 A = 1
5 4
— —
25 5
28 = next Sevens
—
3
30 = Limit
—
33 Days
31 = March

April 2 Easter Day.

To find the Age or Change of the Moon.

Janus 0, 2, 1, 2, 3, 4, 5, 6,
8, 8, 10, 10, these to the epact fix,
The sum, bate 30, to the month's day add,
Or take from 30, age, or change, is had.

EXAMPLE, MARCH 10, 1752.

Ep. = 14
1 = No. of the Month

15
10 = Day of the Month

25 Days = Moon's Age

30
15

15 March = Change.

To find the Time of the Moon's *coming to the South, and of High Water at London Bridge:*

Four times the moon's age, if by five you divide,
Gives the hour of her southing: add two for the tide.

EXAMPLE.

Moon's Age, 9 Days
4

5)36(7 H.
1
12 M. = $\frac{1}{5}$ H.

7 H. 12 M. p. m. = Southing.
2 12 = High Water.

APPENDIX.

"Repetes mox; sive est Naturæ hoc, sive Artis."
SAT. IV. LIB. 2.

HORACE in the above words alluded to the Art of Memory (Mnemonica) more than once praised by Cicero who has also given precepts for the improvement thereof, in the third book of Rhetoric addressed to Herennius, where he says, "The Art consisted of fixing in the mind, upon certain conspicuous places and on images formed of the things to be remembered and that were applied in order to those places; which last mentioned served instead of paper and the images as so many words whose regular application performed the office of writing." Quintilian likewise mentions Mnemonics in his Institutes of an Orator and Pliny notices them in his Natural History, though the original inventor was the Greek poet Simonides who at a feast recited a poem in honour of Scopas, victor in wrestling at the Olympic games, who gave the entertainment, but having digressed in praise of Castor and Pollux, his patron would pay only half the sum promised, saying he must get the other part from those deities who had an equal share in his performance. Immediately after Simonides was told that two young men on white horses must needs speak with him. He had scarce got out of the house, when the room fell down, all the persons in it were killed, and their bodies so mangled, that they could not be known one from another: upon which Simonides re-

collecting the place where every one had sat, by that means distinguished them. Hence it came to be observed, that to fix a number of places in the mind in a certain order, was a help to the memory. This action of Simonides was afterwards improved into an art, the nature of which is this: form in the mind the idea of some large place or building, divided into a great number of distinct parts, ranged and disposed in order: frequently revolve these in your thoughts, till able to run them over one after another without hesitation, beginning at any part: then impress upon your mind many images of living creatures, or any other sensible objects most likely to be soonest revived in the memory. These, like short-hand, or hieroglyphics, must stand to denote an equal number of other words, not otherwise so easily to be remembered. When therefore you have a number of things to commit to memory in a certain order, place these images regularly in the several parts of your building: and thus, by going over those parts, the images placed in them will be revived in the mind; which will give the things or words themselves in the desired order. The advantage of the images seems to be; that, as they are more like to affect the imagination than the words, they will be more easily remembered. Thus, if the image of a *lion* be made to signify *strength*, and this word be one of those I am to remember, and is placed in the porch; when, in going over the several parts of the building, I come to the porch, I shall sooner be reminded of that image than of the word *strength*. This is the artificial memory both Cicero and Quintilian speak of; but seems, indeed, a laborious way, fitter for assisting to remember any number of unconnected words than a continual discourse. Grecian orators also made use of the statues, paintings, ornaments, and other external circumstances, of the places where they harangued, for reviving, in progressive order, the topics and matter of their orations, and though among the Latins, Cicero averred

that Mnemonics were the basis of his excellent memory, and their practice was cultivated by others of whom Hortensius, Crassus, Julius Cæsar, and Seneca, are particularly noticed, yet it is not known that any modern orator has made use of this art; however, in allusion to it, we still call the parts of a discourse *places* or *topics*, and say, *in the first place*, *in the second place*, &c.

The science appears to have lain dormant in after ages, till Raimond Lullé, about the close of the thirteenth century, brought it once more into notice, and it has ever since been called 'Lullé's Art.'

Scepsius-Metrodorus, Carneades, Hippias and Theodectes, among the ancient Greeks, practised or wrote upon this method. The principal Romans are mentioned above. The writers upon the art, from the time of Lullé to near the end of the seventeenth century, principally consisted of Marsilius-Ficinus, Grataroli, Bruschius, Muretus, Schenkel, Martin-Sommer, Horstius, Johnston, Morhof and Paschius; with Gebelin in the eighteenth.

Muretus declares that he dictated between two and three thousand unconnected Greek, Latin or barbarous words, to a young Corsican practising that art, who immediately spoke them regularly in order, and afterwards repeated the same backwards without any error, asserting that he would undertake to say thirty-six thousand words in a similar manner.

Lambert or Lamprecht Schenkel, born at Bois-le Duc, in 1547, acquired celebrity for his discoveries in the Mnemonic Art, and to propagate these, he travelled through the Netherlands, Germany, and France; where his method was inspected by the great, and transmitted from one university to another. Schenkel brought himself through every ordeal, to the astonishment and admiration of his judges. The rector of the Sorbonne, at Paris, permitted him to teach his science at that university; and Marillon, Maitre des Requêts gave him an exclusive privilege for practising Mne-

monics throughout the French dominions. His auditors were, however, prohibited from communicating this art to others, under a severe penalty. Schenkel delegated the licentiate Martin Sommer, and invested him with a regular diploma for circulating his art, under certain stipulations, through Germany, France, Italy, Spain, and the neighbouring countries. Sommer now (1619) published a Latin treatise on this subject, under the title of "Brevis Delineatio de Utilitatibus et Effectibus admirabilibus Artis Memoriæ." In this he announces himself as commissioned by Schenkel, to instruct the whole world.

"A lawyer, (says he,) who has causes to conduct may, by the assistance of my Mnemonics, stamp them so strongly on his memory, that he will know how to answer each client, in any order, and at any hour, with as much precision as if he had but just perused his brief. And in pleading, he will not only have the evidence and reasonings of his own party at his fingers' ends, but all the grounds and refutations of his antagonist also! Let a man go into a library, and read one book after another, yet shall he be able to write down every sentence of what he has read, many days after at home. The proficient in this science can dictate matters of the most opposite nature, to ten, or thirty writers, alternately. After four weeks' exercise, he will be able to class twenty-five thousand disarranged portraits within the space of a few minutes."

The Art of Memory is little more than the art of attention; and this method of it, which appears more connected with Egyptian hieroglyphics than has generally been thought, seems to consist in nothing else but a certain method of coupling or associating the ideas of things to be remembered, with the ideas of other things, already disposed orderly in the mind, or that are before the eyes.

Many have been the attempts to assist the memory. Some have had recourse to medicine, such as Horstius, Marsilius-Ficinus, Johnston, and others. That good

health, a good digestion, and a mind free from care, are helps in this respect, is an old observation. That attention, application, frequent recapitulation, are necessary, is known to every one. But whether, besides natural health, and parts, and the exercise of our faculties, art may not give a further assistance to memory has been a question.

Within the present century this science has been revived and greatly studied in Germany and France; Dr. Klüber published at Erlangen, in the year 1802, a German translation, illustrated by notes of "Gazypholium artis memoriæ per Schenkelium," which the Doctor has entitled "Compendium of Mnemonics, or the Art of Memory, at the beginning of the seventeenth Century, by L. Schenkel and M. Sommer;" but the modern restorer of this art is M. Aretin, who exacted from his pupils a promise not to write down his lectures; and though he permitted one pupil, M. Kaestner, to teach at Leipsic, yet it was on the express condition of not allowing his hearers to write. According to a book, said to have been composed by a child of twelve years of age, in the catalogue for the September fair at Leipsic, 1806, Mnemonica may be so taught as to give a memory to individuals of every age.

In France, the celebrated astronomer M. de Lalande bears testimony to the following facts: "I have witnessed the extraordinary effects produced on the memory by the method of M. de Feinaigle: one of his pupils is able to repeat, in any order, without the least mistake, a table of fifty cities in all parts of the world, with the degrees of longitude and latitude in which they are situated; the same is the case with chronology: in the Annuaire I have inserted 240 dates from ancient and modern history, and M. de Feinaigle's scholars repeat them all—an astonishing aid in the study of geography and history!"

Neither has this science been unattended to in Great Britain, for, besides Johnston already mentioned,

who was a Scotch physician, practising at the courts of James and Charles I. Mnemonics are frequently mentioned by the great Chancellor Bacon, as in his Treatise on the Advancement of Learning; his Natural History, wherein he states, "The brains of some creatures, when their heads are roasted, taken in wine, are said to strengthen the memory; as the brains of hares, hens, deer, &c. and this faculty seemeth to be incident to those creatures that are fearful." In the tract De Augmentis Scientiarum, Bacon recommends theatrical action as an assistant to memory, and also alludes to the system of Simonides as founded on the theory of emblems, by saying, "Emblem reduceth conceits intellectual to images sensible, which always strike the memory more forcibly, and are therefore the more easily imprinted, than intellectual conceits." In the Novum Organum the science is again mentioned under the appellation of "Order or Distribution in respect to places, furniture, persons, animals, plants, words, letters, characters, &c."

Dr. Thomas Fuller, the author of the History of the Worthies of England, was also an adept at this art, he could repeat five hundred strange words after twice hearing them, and make use of a sermon verbatim, if he once heard it: after one inspection, he told in exact order both forwards and backwards the name of every sign from Temple Bar to the furthest part of Cheapside, in the city of London: he would write the first words of a number of lines near the margin of a sheet of paper, then by beginning at the head, would so completely fill up every line, and without spaces, interlineations, or contractions, so connect the whole, that the sense would be as perfect, as if regularly written in the ordinary way.

The following works were also expressly published on this subject: Mnemonica, or the Art of Memory, drained out of the pure Fountains of Art and Nature, digested into three books; also a Physical Treatise of

Cherishing Natural Memory; diligently collected out of Divers Learned Men's Writings. By John Willis, Batchelour in Divinity, 1661.

This author's method commences with rules for remembering common affairs, next words, then phrases, afterwards sentences, and long speeches. The second book treats of remembering without writing, next by certain verses purposely borne in mind, and by extempore verses. The third treats of Repositories, in which is a print of an imaginary building of hewen stone in form of a theatre, where all things intended to be remembered are supposed to be arranged in order, and he gives various specimens of ideas to exemplify his plan.

The Art of Memory, a Treatise useful for all, especially such as are to speak in public. By Marius D' Assigny, B.D. 1699.

This gentleman's mode begins with a chapter of the soul or spirit of man, and in the succeeding chapters, after treating of memory, temper, &c. he gives in the sixth a number of receipts for cleansing the hair, comforting the brain, and strengthening the memory, by means of plaisters, ointments, and powders; and in his other chapters proceeds with some instructions for remembering words and things, as, for instance, he states, that "others, instead of a house, palace, or building, have chosen such beasts as answer to all the alphabetical letters in the Latin tongue, dividing every one into five parts, viz. head, fore feet, belly, hinder feet, and tail, so that by this means the fancy may have one hundred and fifteen places to imprint the images of memorable things."

Heidegger, who about the year 1740 stiled himself Surintendant de plaisirs d' Angleterre, at the Opera in the Haymarket, excelled Dr. Fuller, by being able to repeat the names of all the signs in their due order on each side of the way from Charing Cross to Aldgate, a space containing near one thousand four hundred houses, most of which at that period had signs.

Dr. Rees, editor of Chambers's Cyclopædia, says, "Mnemonic tables exhibit in a regular manner what is to be remembered of the same subject. And although the sciences ought to be taught scientifically as much as possible, and every thing should so be placed as to be intelligible and demonstrable from what has proceeded, yet tables ought not to be rejected, as they are helps to retain the doctrines of which the mind has had sufficient evidence. In such tables the properties of things are to be expressed concisely; illustrations and demonstrations should be left out, as the proposition should have been made sufficiently clear and certain before it is registered in the table—hence the contents of such tables ought only to be definitions and propositions relative to the subject. If a subject require a long table, it may be subdivided into smaller, by making first one of the most general heads, and referring from each of these to a separate table; by this means the order and connection of the whole will be preserved. Such tables would produce a local and artificial memory, of great use to the retention and recollection of things: they would greatly facilitate a distinct view of the properties of their subjects, and facilitate recapitulation. Besides, as the expressions used in such tables ought to be concise, so as just to excite the idea of the object to be remembered, soon after that idea has been acquired; after (some time) a certain obscurity will be found in perusing the tables, which will give timely warning that our ideas begin to fade, and that they ought to be renewed; and this may be done without much trouble, if not delayed too long."

"Men complain of nothing more frequently (says Beattie in the Theory of Moral Science) than of deficient memory: and indeed every one finds, that, after all his efforts, many of the ideas which he desired to retain have slipped irretrievably away; that acquisitions of the mind are sometimes equally fugitive with the gifts of fortune; and that a short intermission of

attention more certainly lessens knowledge than impairs an estate. To assist this weakness of our nature, many methods have been proposed; all of which may be justly suspected of being ineffectual: for no art of memory, however its effects may have been boasted or admired, has been ever adopted into general use; nor have those who possessed it appeared to excel others in readiness of recollection or multiplicity of attainments. The reader who is desirous to try the effect of those helps, may have recourse to a treatise entitled Grey's Memoria Technica, or Method of Artificial Memory: but the true method of memory is attention and exercise."

A writer in the Monthly Magazine for September, 1807, under the signature of Common Sense, tells us the Art of Mnemonics is founded simply on the powers of association in the human mind. Every person who has twice travelled the same road, will probably have brought to his recollection, during the second journey, the feelings of his mind, the subjects of conversation, and other trivial incidents which occurred during his first journey, the moment he comes again within sight of the successive objects; these recollections will take place exactly in the same order as the objects which bring them again before the mind. All that is wanted to enable us to retrace any set or succession of ideas, is an unvarying continuity of objects with which we can associate them. Any person who wishes to try an experiment on this power of association, need only make use of the succession of rooms, closets, staircases, landing-places, and other remarkable spots or divisions of his own house. Let him apply any word or idea to the several parts, in determined order, and he will find it almost impossible, in recalling the same, not to associate the idea or word previously annexed to each part: for example, a person may learn the succession of the kings of England in ten minutes, by annexing the name of each succeeding monarch to the successive rooms, &c. of the house, regularly descend-

ing or ascending; but any other permanent and familiar class of objects will, in general, answer the purpose better. I was educated in the vicinity of Oxford-street, and the streets running therefrom, south and north (beginning at Charles-street, Soho-square, and proceeding to Park-lane, and back again on the other side to Hanway-yard) are the permanent and familiar objects I use for the purpose of successive association. The counties in England, the kingdoms and countries throughout the world, the villages, and other objects on a great road, or the streets of a city, are all well suited to this business of association; and any of them may be taken indifferently by various persons, according to their acquaintance therewith. The greater the variety of ideas connected with this set of objects, which may be called *the associating key*, the more easy and certain is the power of recollection. By this method I once committed to memory, in a single morning, the whole of the propositions contained in the three first books of Euclid, with such perfection, that I could for years afterwards specify the number of the book on hearing the proposition named, and recite the proposition on hearing the number and the book; and have frequently, in mixed companies, repeated backwards and forwards from fifty to an hundred unconnected words, which have been but once called over. To prove the simplicity of the plan, I taught two of my own children to repeat fifty unconnected words in a first lesson, of not more than half an hour's continuance.

CHRONOLOGICAL WORDS

ON

DR. GREY'S PLAN.



Cre*othf*, the creation of the world, 4004 years, A.C.
Del*etok*, the deluge, 2348.
Bab*etheop*, the building of Babel, 2247.
Argon*atlou*, the Argonautic expedition, 1359.
Lycurg*oudau*, the birth of Lycurgus, 926.
Olym*pois*, the Olympic games, 776.
Rom*put*, the foundation of Rome, 753.
Ninev*syd*, the destruction of Nineveh, 602.
Marath*ony*, the battle of Marathon, 490.
Alexander*ilau*, the birth of Alexander, 356.
Ips*iza*, the battle of Ipsus, 301.
Cheron*itei*, the battle of Cheronæa, 338.
Pharsal*ok*, the battle of Pharsalia, 48.
Philipp*od*, the battle of Philippi, 42.
Acti*ta*, the battle of Actium, 31. A. C.
Jes*it*, the resurrection of Jesus Christ, A. D. 33.
Herculan*oin*, the destruction of Herculaneum, 79.
Jerusal*oiz*, the destruction of Jerusalem, 70.
Rom*oaz*, Rome sacked by Alaric, 410.
Rom*opy*, Rome being taken by Odoacer, 470.
Mahom*upa*, the birth of Mahomet, 571.
Mahom*audd*, the Hegira of Mahomet, 622.
Mahom*sid*, Mahomet's death, 632.

Jerusal*stau*, Jerusalem taken by Omar, 636.
Charlem*oife*, the birth of Charlemagne, 742.
Charlem*eiyz*, Charlemagne crowned at Rome, 800.
Alf*reiouz*, Alfred divided England into counties, &c. 890.
Canut*azap*, Canute became king of England, 1017.
Macb*azoy*, Macbeth usurped the throne of Scotland, 1040.
Willi*azsau*, England conquered by William of Normandy, 1066.
Crusad*azoul*, the first crusade commenced, 1095.
Henr*ag*, Henry I. commenced his reign, 1100.
Ghibel*aglo*, the Ghibelines and Guelphs disturbed Italy, 1154.
Jerusal*agkoi*, Jerusalem taken by Saladin, 1187.
Constantinopl*adyd*, Constantinople taken by the French and Venetians, 1202.
Turk*adouk*, the Turkish empire commenced under Othman, 1298.
Bannock*ataf*, the battle of Bannockburn, 1314.
Crec*atos*, the battle of Crecy, 1346.
Poic*atlau*, the battle of Poictiers, 1356.
Otterb*ateik*, the battle of Otterburn, 1388.
Tamerl*afyd*, the victory of Tamerlane at Angoria, 1402.
Agincour*afal*, the battle of Agincourt, 1415.
Columb*afoud*, Columbus discovered Hispaniola and Cuba, 1492.
Cabot*afoun*, Sebastian Cabot landed in North America, 1499.
Maximil*alyz*, Maximilian divided Germany, 1500.
Luther*alboi*, Luther commenced the reformation, 1517.
Charl*albou*, Charles V. elected emperor, 1519.
Rhod*alde*, Rhodes taken, 1522.
Pav*aldu*, the battle of Pavia, 1525.
Rom*aldoi*, Rome take taken by Charles V. 1527.
Pass*alud*, the treaty of Passau, 1552.
Verv*alouk*, the peace of Vervins, 1598.

Prag*asez*, the battle of Prague, 1620.
Barbad*asel*, the planting of Barbadoes, 1625.
Lutz*usid*, the battle of Lutzen, 1632.
Westphal*asok*, the treaty of Westphalia, 1648.
Nimeg*baupei*, the peace of Nimeguen, 1678.
Revol*askei*, the revolution in Britain, 1688.
Gibralt*apzo*, Gibraltar taken by admiral Rooke, 1704.
Blenhei*boiyf*, the battle of Blenheim, 1704.
Malpla*boizou*, the battle of Malplaquet, 1709.
Dettin*apot*, the battle of Dettingen, 1743.
Fonten*boifu*, the battle of Fontenoy, 1745.
Minden*aplou*, the battle of Minden, 1759.
Grenad*apoin*, Grenada taken by the French, 1779.
Bastil*apkou*, the Bastile destroyed, 1789.
Louis*apni*, Louis XVI. guillotined, 1793.
Camperd*apnoi*, the Dutch defeated off Camperdown, 1797.
Nil*apnei*, the battle of the Nile, 1798.
Sering*apnou*, the taking of Seringapatam, 1799.
Trafalg*akyl*, the battle of Trafalgar, A.D. 1805.

CHRONOLOGICAL EXERCISES,

ON

DR. GREY'S

METHOD OF ARTIFICIAL MEMORY.

Form memorial words expressive of the æra of the building of Babel, 2247 years before Christ.

The building of Thebes, 1493.

The building of Corinth, 1320.

The building of Tyre, 1252.

The burning of Troy, 1184.

The building of Carthage, 869.

The foundation of Byzantium, 658.

The taking of Babylon by Cyrus, 538.

The battle of Salamis, 480.

The battle of Mantinea, 363.

The battle of Arbela, 331.

The taking of Corinth by the Romans, 146.

The battle of Pharsalia, 48; and the death of Julius Cæsar, 44 years, A.C.

The commencement of Trajan's reign, A.D. 98.

The commencement of Aurelian's reign, 270.

Charlemagne sole monarch of France, 772.

The battle of Roncesvalles, 778.

The commencement of the reign of Alfred, 872.

The commencement of the reign of Canute, 1017.

The commencement of the reign of Stephen, 1135.

The commencement of the reign of Margaret of Norway, 1286.

The battle of Angoria, 1402.

The battle of Barnet, 1471.

The revolution in England, 1688.

The battle of Dettingen, 1743.

The siege of Gibraltar, 1779.

The destruction of the Bastile, 1789.

The union between Great Britain and Ireland, 1800.

The surrender of Alexandria to the British troops A.D. 1801.

THE USE

OF THE

INDEX.



THE following Index may be useful in two respects; either as it will serve to try the proficiency of the learner, who may exercise himself in resolving and explaining the Memorial Words, thus separated from their proper classes, and intermingled with each other (which will at the same time be a means to fix them the better in his memory); or, as it may be to those who are a little acquainted with the art, but have not charged their memories with the technical *lines, a* ready help *to answer many questions in chronology, geography, history, &c. without the trouble of searching for them in the tables; to make which the easier in the historical and chronological part, it was thought proper to add a letter or two at the end of each word; by the help of which, and the beginning of the words together, any one, who is but tolerably acquainted with history, and is master of the general key, will readily know what the words stand for. The principal abbreviations are as follow:*

AB. Archbishop of Canterbury.
Ær. Æra or epocha.
B. Battle.
B R. Bishop of Rome.
C. Council.
Ep. Epistle, *i. e.* the time of writing it.
Ev. Evangelist.
E R. Emperor of Rome.
E E. Emp. of the East.
E W. Emp. of the West.

F. Father.
H. Heretic, Schismatic, &c.
H P. High Priest.
J. Judge of Israel.
K. King.
K Ass. King of Assyria.
K B. King of Babylon.
K E. King of England.
K Eg. King of Egypt.
K Ju. King of Judah.
K Is. King of Israel.
K M. King of Media.
K Ma. King of Macedon.
K P. King of Persia.
K R. King of Rome.
K S. King of Syria.
L. Law-giver, Learned Man, Author, &c.
Leg. Legate.
Mart. Martyr.
P. Pope.
Pa. Patriarch.
Ph. Philosopher.
Po. Poet.
Pr. Prophet.
Q. Queen.
W. War.
= different Names of the same person.

Those words which have no letter at the end of them, denote some fact in history; as Abaneb, *the calling of* Abraham.

The italic letters represent the year before or after Christ. The small Capitals M *and* P *in the middle of a word denote the year of the world, or of the Julian period, as* Troy*Pilta, &c.*

Be careful to give the right pronunciation; and note, that the accent, unless where otherwise marked, or when the penultima, or last syllable but one, is long by position, is always on the antepenultima, or last syllable but two.



INDEX

TO

GREY'S MEMORIA TECHNICA:

CONTAINING THE

CHRONOLOGICAL AND HISTORICAL WORDS.

☞ *The Figures in Roman Letters refer to the Introduction.*

* This and several other words in the *Memorial Lines* are contracted as Abmels, Al-Sedd, &c. &c.



THE
CONSTRUCTION AND USE
OF THE
GEOGRAPHICAL WORDS.

OF words consisting of two parts in the same character, joined with an hyphen, the first part denotes a city, town, people, &c. in a kingdom, region, or province, denoted by the latter: the words in *italic* letters signifying places in ancient Geography; the words in *roman* letters, places in modern Geography. Thus, *Abdér-thra*; Abdera, a town in ancient Thrace. Aginc-art; *Agincourt* in *Artois.*

Words in a parenthesis denote that the place represented by the first syllable or syllables, is one of those represented by the latter, (Antig-lee) *Antigua*, one of the *Leeward* Islands; (Cub-ant) *Cuba*, one of the *Antilles.*

The letters N. E. S. W. either following or in a word, denote the situation of a place; as, Antill-luc S, the *Antilles* Islands, South of the *Lucayos*; Madéir-barb W. *Madeira*-Isles, West of Barbary: *AmNEmoab*, the *Ammonites* resided on the North East of Moab. S preceding a word signifies Saint.

The letters G S. denote Sacred Geography.

A small capital at the end of a word denotes a particular portion or division of the region designed by the preceding letters; as *Æqui-latN* points out that the Æqui dwelt in Latium Novum; Batch-tartaP, that Batchiserii is situated on the peninsula of Little Tartary.

Italics joined with an hyphen denote the latitude and longitude of a place: as, Agr*ék-oit*, the latitude of Agra 28 deg the longitude 73.

Italics joined with a comma denote the proportion of the kingdom, &c. to Great Britain; as Germ*t,ut*. Germany to Great Britain as 3 ,53 to 1.

Italics joined without an hyphen generally denote the distance from London or Jerusalem; as, Par*dtl sc.* Paris from London about 225 miles; Antioch*ig*, Antioch from Jerusalem about 300 miles.

Syllables joined with this mark = denote correspondent places of ancient and present geography: as *Ach*=livad, the *Achaia*, the present Livadia.

VOCES GEOGRAPHICÆ.

The reader will find, in this Index, also many of the words more fully expressed than they are in the body of the work.

N.B. These Indexes do not contain quite all the words, but it is hoped enough is inserted to answer every useful purpose.

FINIS.

W. Flint, Printer, Old Bailey, London.

